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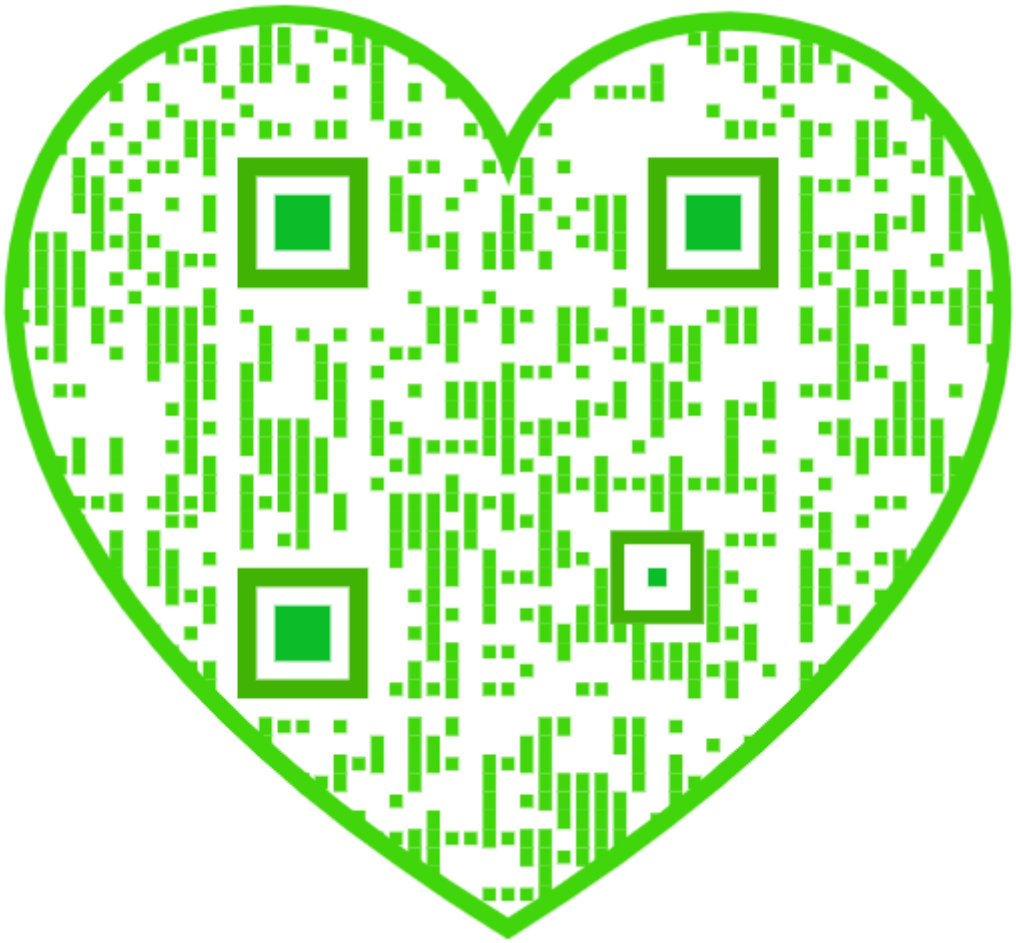
AROUND THE WORLD DENTISTRY

H. L. AMBLER



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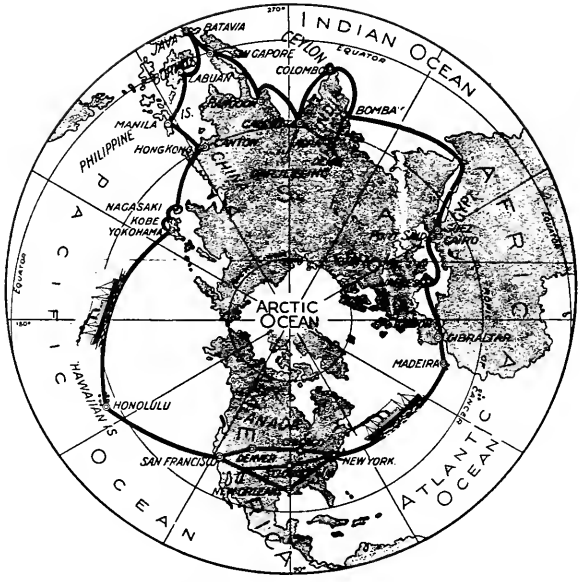

TRACK OF STEAMSHIP CITY OF CLEVELAND
ON CRUISE AROUND THE WORLD.

AROUND THE WORLD

DENTISTRY

BY

HENRY LOVEJOY AMBLER, M.S., D.D.S., M.D., D.H.

AUTHOR OF

TIN FOIL AND ITS COMBINATIONS FOR FILLING TEETH.

FACTS, FADS AND FANCIES ABOUT TEETH.

HISTORY OF THE NORTHERN OHIO DENTAL ASSOCIATION.

MEMBER

NATIONAL DENTAL ASSOCIATION.

OHIO STATE DENTAL SOCIETY.

NORTHERN OHIO DENTAL ASSOCIATION.

CLEVELAND CITY DENTAL SOCIETY.

IN PREPARATION:

HISTORY OF DENTISTRY IN CLEVELAND, OHIO.

ILLUSTRATIONS BY THE AUTHOR.

CLEVELAND, OHIO.
THE JUDSON PRINTING CO.
1910

30,000 miles by sea and land, and crossing the equator twice, and looking for dentistry all the time, is what the writer has been doing, and he proposes in the following pages to present a brief sketch of dentistry as he found it, together with several "snap shots" which have never appeared in public.

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The Hamburg-American Steamship Cleveland left New York October 16th, 1909, with six hundred and fifty passengers, bound on a cruise around the world, and let it be said, that this is the first time that any ship with a load of passengers ever went entirely around the world. It remained for the Yankees (Clark's) to inaugurate such a stupendous undertaking. Eight days out from New York we arrived at Madiera, a province of Portugal. Funchal, the main city, beautifully set in a background of lofty hills, has about 50,000 inhabitants, including seven or eight hundred English, but the natives generally are in a state of ignorance and superstition. According to the laws of Portugal, no one can practice dentistry without passing an examination in the medical school of Lisbon, Coimbra or Oporto.

The dentist (Jayme De Sa), whom we saw here two years ago, has departed, leaving the field to Agevedo Ramos, who is a native but took his D. D. S. in Chicago; his office is in the third story of a good building in the busy part of the city.

In Gibraltar, F. B. Bostwick, D. D. S., has an office on the main street; the double door opens onto the sidewalk, and on one door there is an oblong, well-polished brass plate, viz.: Dr. F. B. Bostwick, D. D. S., Dentist; you have to ring the bell before you can enter, then go up one flight of stairs to his office, which is a good one; we were told he was the best in the city of 28,000 population. Gibraltar is the key to the Mediterranean and to the commerce of nations, and is owned by the British.

Joseph Vazquez, Surgeon-Dentist in Gibraltar, has an office on the main street, the door of a hallway opens onto the sidewalk, and on the building on a large brass plate appears his name as above. Go up one flight of stairs to his office, which is in a two-story building—this is the height of most of the buildings on the street.

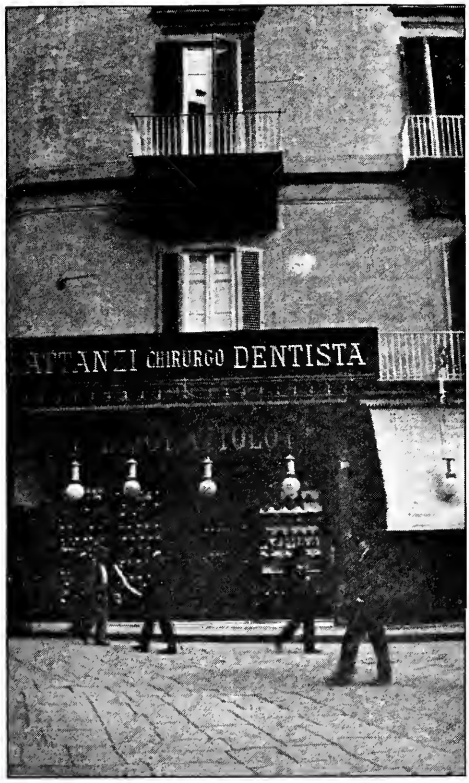
We took a snapshot of the brass plate and doorway.

We saw a sign on a window, viz.: Barber—Shampooing—Teeth Extracted. We saw Parke, Davis & Co.'s preparations on sale here in drug stores.

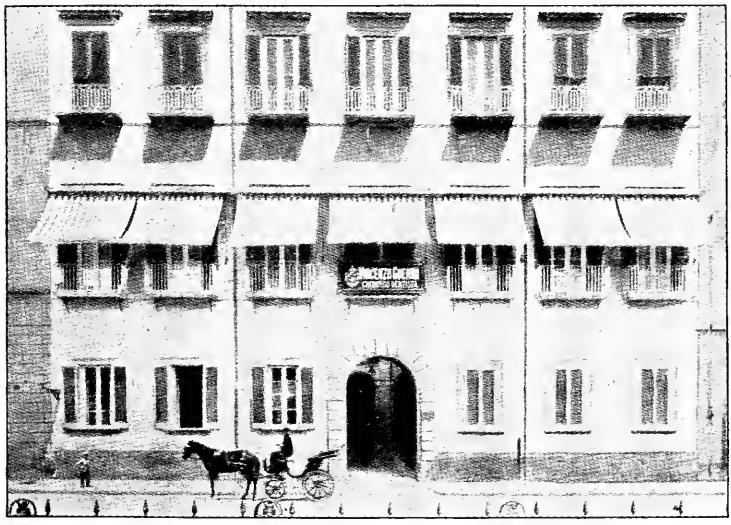
Naples occupies one of the most beautiful sites in the world and has a population of about 564,000, including ninety dentists, among whom are no Americans, one Englishman, two Germans, one of whom has his wife for an assistant, and A. Augusto, D. D. S. (U. S. A.), the rest are mostly natives. The best dentists here generally have offices in their residences, still there are a great many who have offices in public buildings. Here is a picture of a sign sixteen feet long.

OFFICE FRONT OF JOSEPH VASQUEZ.

For the second time in two years we called on Dr. Vincenzo Guerini, Surgeon-Dentist of the Surgical Clinic of the university, appointed to the Royal House, editor of the Journal L'Odonto Stomatologia. He has a beautiful suite of offices and several assistants. Again we saw the life-size bronze bust of the lamented Dr. W. D. Miller, but the bust of Dr. T. W. Brophy had been sent to him in Chicago.

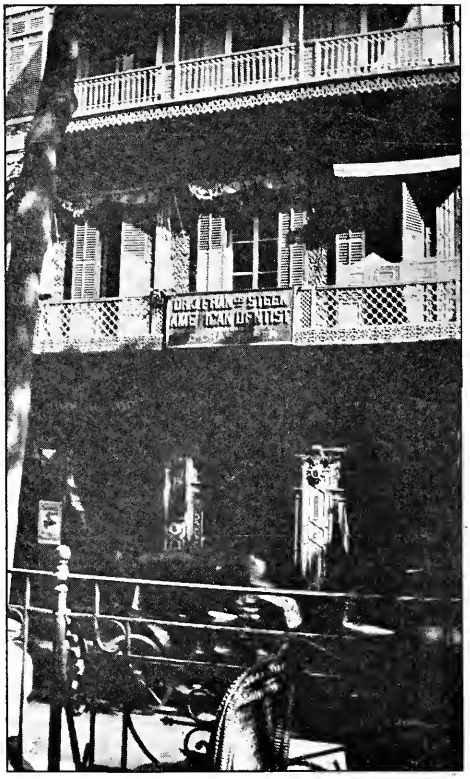


DENTAL SIGN IN NAPLES.



OFFICE OF DR. GUERINI, NAPLES.

If a native studies for six years and graduates as an M. D. he is entitled to practice medicine, surgery or dentistry. If an alien wishes to practice dentistry, he must pass an examination and obtain the degree of M. D. from one of the Royal Italian universities. The government has appointed a special commission for the purpose of drafting a special dental law, and many hope to see a dental college established on the plan of the American dental college. Port Said has three dentists, Jean M. Anagnostopoulo, N. Callery, George Stamphi. Luxor one, As-



OFFICE OF DR. STEEN, CAIRO.

souit two, Assouan one, Suez two, Tantah four, Zagazig one.

There were no dental "ads" in the directories of any of the above places.

In Alexandria there are twenty-two dentists; among them A. F. Leuty, an American, who has relatives in Cleveland, Ohio. Among others are Mlle. Florence, J. Antonopoulo, N. Haviaropoulos, G. Mastorakis, A. Tambacopoulo. C. Ash and Sons have a dental depot here.

PYRAMIDS—CAIRO.

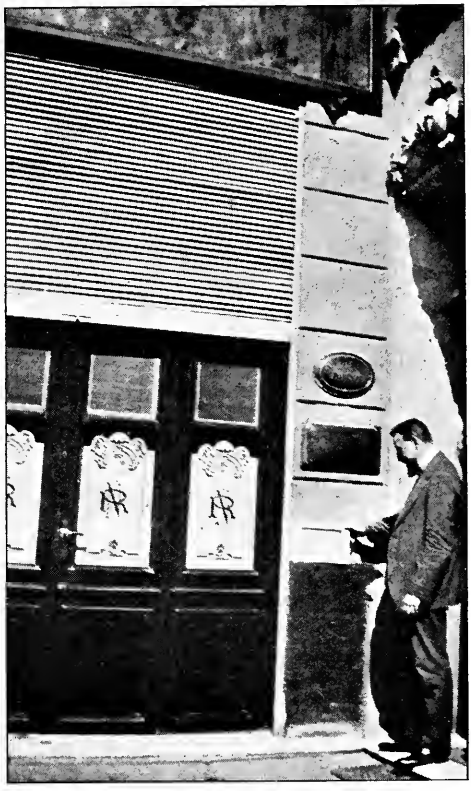
From left to right:—Miss Hills, Mrs. Ambler, H. L. Ambler.

Cairo, with a population of about 750,000, has fifty-seven dentists, among them, F. H. Henry, who was graduated from the Kansas City Dental College, and has been here about six years. J. Francis Steen, from Toronto, successor to Charles Faber, has been here two years, and is finely located opposite Shepheard's Hotel, in a fashionable part of the city

DANIELE CALLERY'S SIGN, CAIRO.

There are three native dentists here who went to the United States for a degree and then returned to practice; among the other dentists, several nationalities are represented, as can easily be inferred: A. Alcee, J. Bauer, C. Bertomy, M. Ciardi Ciardo, H. Demirdjan, Aly El Bakey, G. Flexor, D. Maria Glantz, Mlle. S. Hekimian, Henriette Hornik, Mlle. A. Pantazopoulon, Mme. E. Stein. Many of these have good offices and equipment. Daniele Callery, Surgeon-Dentist, has a sign (French and Arabic) several feet wide, which reaches across the street.

Dr. Gatineau keeps in a drug store window for an "ad" a glass-covered frame about ten by twelve inches, which contains twelve macroscopic sections of human teeth and six teeth with gold shell crowns. The following picture shows Mr. L. Nadel, the druggist (chemist here), in the courtyard of his store holding the glass case referred to so that the writer could get a snap-shot.



L. NADEL, CAIRO.

In the dental depot of Ash & Sons we saw Tricresol and Formalin, the combination prepared by Dr. Buckley of Chicago; also the orthodontia appliances of Dr. Angle, and several of White's productions, and a foreign atlas of Radiographs, showing the development of the first and second denture; also the Zepto Antiseptic Tartar Remover which is a pencil made of fine tooth powder, held together with a binding substance. "It will whiten the teeth and is harmless in every particular. When the point is worn off it can be sharpened with a knife. Moisten

the end of the pencil in water, and rub the teeth with medium pressure until the tartar is removed—any child can use it."

Sabas J. Mohbat has a large hosiery store in connection with a few dental goods; here we saw Oxapara from Ransom and Randolph; Cavitine, files, carborundum wheels from White's, and a German punch for punching holes in metal backings, exactly the size of the pins and their distance apart in the artificial tooth; it was a simple instrument, but effective.

We saw a placard, viz.: "Customers are requested to pay prompt cash their purchase in precious metals."

MUMMY OF RAMSES II.

Mr. Mohbat said there was kind of a dental college in Constantinople in connection with the medical college, and that since the young Turks came into power, that anyone who wishes to practice dentistry must pass an examination before the Medico-Dental Board; a dentist from Cairo cannot go to Constantinople and practice without first passing this board. No dental college in Cairo, and practically no dental books for sale.

A person who presents a genuine diploma from a regularly incorporated and properly recognized dental college in the United States can practice dentistry here upon application and identification at the Sanitary Department.

"One day we went to see one of the oldest gates in Cairo, which is supposed to be haunted by an evil spirit. Several old women approached the gate cautiously, spit three times over their left shoulder, to exorcise the demon, and then peered behind the door with much the same expression that some of their sex in the Occident assume, when they look timidly under a bed at night. They wanted to see if the evil spirit was at home, but the demon was evidently out that day. Accordingly, the women left what answered for their cards. One inserted in a crevice of the gate an old tooth, and hobbled away, believing

MUMMY OF PRIEST.

she would thenceforth have no toothache; another tied a lock of hair to a rusty nail, believing this would exempt her from headache."—Stoddard.

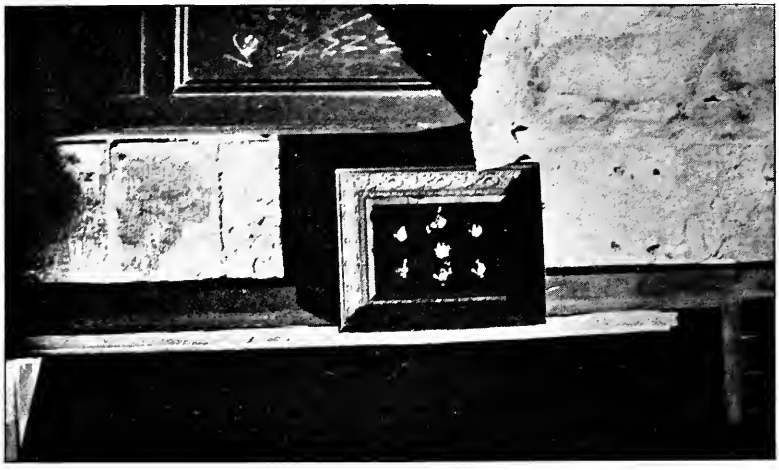
In the great Egyptian museum we saw the mummy of Ramses the Second (19th dynasty), and it looked as if during the process of mummification there had been a paste used which at present covers all the teeth except one-half of the upper right cuspid and a portion of the buccal surface of a bicuspid. The mummy is five feet and eight inches in height.

The mummy of Mahir Pra (priest) of the eighteenth dynasty shows three upper incisors which are very good and have not been filled.

The mummy of Lady Amanit, a priestess of Hathon, has the mouth partly open showing a full denture of good teeth, without any fillings as far as we could observe. This mummy was reclining in a glass case, but as tourists are not allowed to carry cameras into the museum, and no official had photographed her, we are unable to present her picture.

Mummies generally do not show their teeth, because they were covered with embalming paste, or the lips have not shrunken enough to show them.

Some of the dentists here advertise by having large glass cases, outdoors fastened to the wall, filled with dental specimens. We present a picture of one.



CASE OF DENTAL SPECIMENS.

Mohammedans were formerly forbidden to have a tooth extracted without permission from the Sultan. Mahomet required the faithful to wash their mouths three times before entering a mosque.

Here we purchased a book of two hundred and fifty pages bound in paper and entitled Prompt Aid to the Injured; it is a translation into Arabic of a book sold in the United States under a similar title, and many of the illustrations are just the same. We saw Glycothymoline, Listerine, and other United States dentifrices for sale in the pharmacies.

In speaking about oriental dentistry, Sir Henry Layard says: "I had slept little, as I was suffering from toothache.

The Sheik declared there was a skillful dentist in the encampment, and I made up my mind to put myself in his hands. He was accordingly sent for and proved to be a tall, muscular Arab, whose instruments consisted of a short knife or razor and a kind of iron awl. He bade me sit on the ground, and then took my head firmly between his knees. After cutting away the gums he applied the awl to the roots of the tooth, and, striking the other end of it with all his might expected to see the tooth fly into the air, but it was a double one, and not to be removed by such means. The awl slipped and made a severe wound in my palate. He insisted on a second trial, declaring he was sure to succeed, but the only result was that he broke off a large piece of the tooth, and I had suffered sufficient agony to decline a third experiment."

Bombay, India, population about 800,000, has about 150 dentists; Americans, D. H. Davidson, Chicago Col. Dent. Sur.; H. P. Neeper, Dent. Col., Keokuk, Iowa; W. N. Winder, St. Louis University; one Australian with his D. D. S. from the United States; six others are English, and the rest are natives, bad and indifferent. Fees of American dentists are about viz.: Gold fillings, $3.00 to $8.00; amalgam or cement, $3.00; extraction, $3.00; upper or lower denture on vulcanite, $40.00.

Missionaries receive a reduction from the above fees.

While the writer was there, a meeting was held of the Bombay branch of the British Medical Association, before which was being considered a bill "For the Registration of Medical Practitioners in Bombay," but as for dentistry, anybody who pleases can try to practice. No dentists advertise in the city directory, but some of the English and native dentists have a standing "card" in the daily paper.

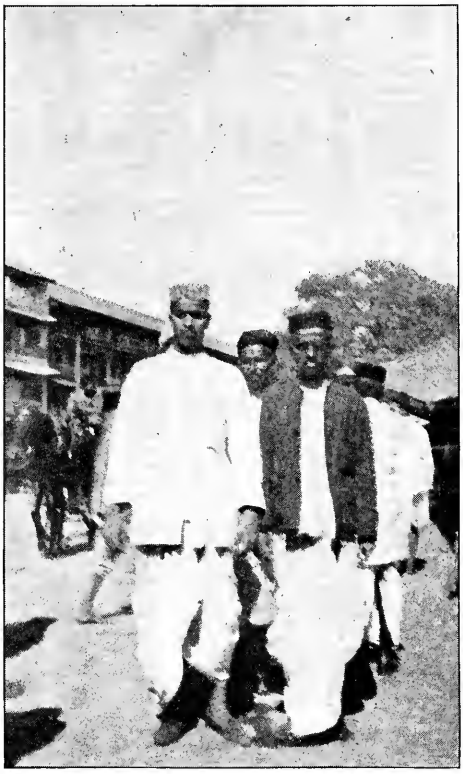
If there are any dental books here they are published in English.

No dental journal, college or society, so far as we know, in India.

The American dentists operate by appointment, and they say patients seldom fail to keep their dates. There are many Parsees here, but they are very clannish, and only patronize a Parsee dentist. In Dr. Winder's office we saw a circular fan 20 inches in diameter, mounted on an upright base which stood on the floor; it was run at a slow speed by a kerosene oil lamp, which heated the air inside of a cylinder.

There is a surgical supply house here which keeps a few dental goods from S. S. White, London and Berlin; we saw gold foil cylinders from Carl Wolrab, Leipzig.

We present a picture of Khunderao Dentist (at the right) and his brother, taken on the street around the corner from his office, and another picture of the brother, who is a dentist, standing in front of the office; on the roof is a sign in English, Hindu

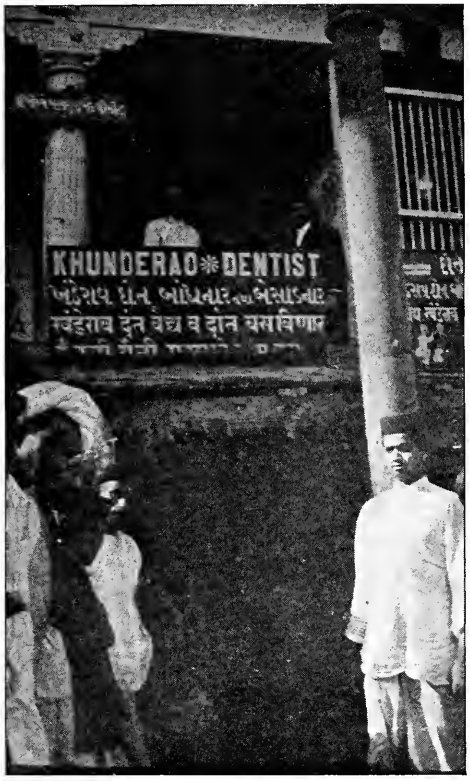


KHUNDERAO AND HIS BROTHER.

and Arabic. After "going the rounds" we must admit that this office caps the climax. The office (?) front is under the sign, and it only presents the appearance of a black hole.

This office is at the edge of the sidewalk, on a busy street, and is about six feet high, five long and four wide, and is built of boards; about two and one-half feet above the sidewalk is the floor of the office on which the dentist and his patients sit, as there are no chairs or stools; hanging on the wall is a small glass

case with a few pairs of forceps and crude instruments and a full denture on vulcanite. He showed me a letter in reply to one he wrote to the Consolidated Dental Manufacturing Co. of New York; he chews betel nut, which produces an expectoration about the color of strong tobacco juice; this makes his teeth a dark brownish-yellow and finally black; he wears a small black skullcap, a loose dark colored cotton shirt and trousers, and



KHUNDERAO'S OFFICE.

over all a thin, black coat. The betel nut is used by a great many men, and some women, in tropical countries as a substitute for tobacco. It is sold at small native stands and by street peddlers. The "chaw" is made up viz.: An oblate green leaf with a peppery taste, about two by three inches taken from a climbing vine called Piper, is placed in the hand and the upper side of the leaf is partly daubed with a paste of lime (sometimes made by burning coral), then over this is daubed a paste of some aromatic herb (which has the odor of allspice), or a little

catechu, or myrrh, or tobacco, flavoring it to suit their customers, then on all this is placed some small pieces of betel nut and the leaf is folded into a small triangular form ready to be placed between the cheek and teeth; if the vendor of such "chaws" makes up any in advance, he puts a small wooden pin into the leaf, after he folds it, so as to keep it from unfolding. Of course, the pin is removed before placing the "chaw" in the mouth. The betel nut grows in clusters on a small slim tree, called the Areca nut palm; it has a thick husk, inside of which is a nut about the size of an ordinary nutmeg (of which it reminds us), the nut is generally cut into thin slices before being used.

In a volume entitled "Imperial Guide to India," appears the following: "J. M. Tarachand, Dental Surgeon (from Guy's Hospital, London), Albert building, Hornby road, Fort Bombay. The best dental establishment in Bombay where high-class dental work is done."

An "ad" from a Bombay daily newspaper, viz.: "Dental Surgeon, M. S. Nicholson, best artificial teeth guaranteed to fit well, painless extraction under local anesthetics, decayed teeth permanently filled in with silver, cement or gold, 37 Hornby Road." Several resident American dentists in different parts of India told the writer that there was no dental law, and from what he has seen he is fully prepared to believe it. We note that W. H. Michael, in regard to India, says: "Regularly graduated dentists, before they can practice, must take out a license, which is simply a municipal tax." Yes, but what about the thousands of irregulars who never saw or even heard of a dental college? We saw Glycothymoline, Sozodont, Colgate's and Graves' dentifrices for sale here.

The fakirs in India, in order to gain respect, sympathy and backsheesh (tips), will hold a piece of red-hot iron between their teeth until it becomes cold. The snake charmers extract the venomous fangs of poisonous snakes before they perform with them; nevertheless 20,000 persons die here yearly from snake bites.

The rosary is generally worn in Eastern countries by Buddhists, Hindus, Mohammedans, etc., and the beads are made of stone, wood, bone, ivory, coral or pearl, but some use human teeth in place of beads. These rosaries are used to tally their worship, and the number of beads in a rosary varies greatly.

Mr. E. S. Wright says: "At Delhi the Hindoo men go to the well—generally a pool—and sit on the steps with their feet in the water and take their brass bowls and pour water over their naked bodies, and the surplus runs back into the pool, then they take another bowl full and rinse out their mouths and clean their teeth and spit the surplus into the pool; then they take a bowlful of this water to drink. After this the women come and fill brass jars with water and carry it away for domestic use."

In India we saw the seller of lemonade with his gaily decorated glass vessel on his back, and his clinking brass cups in his hand, shouting, "A remedy for the heat—cheer up your hearts. Take care of your teeth." Dr. L. told the writer that he saw a native bathing in the Irawaddy river, and when he had finished he dipped his finger and thumb in the mud and scoured his teeth.

Agra, India, has about 180,000 population, mostly natives, and only four dentists, all of whom are natives and have learned what little they know about dentistry from some itinerant dentist who has been in the city, or else they have gone to Bombay (849 miles away) and worked in some dental office for a short time and then returned home and put out their sign as dentist. This they can easily do, as there is no law to prevent anybody from practicing—or trying to.

Wazirkhan is the name of one of the dentists. Pasted on the wall of an old one-story building we saw a large piece of paper, on which was printed, Painless Dentistry. Occasionally an English dentist comes here and stops at the hotel, and practices for a few weeks.

This is the city where the Taj-Mahal (Tomb of Mahal), the most magnificent architectural structure in the world, is located.

The island of Ceylon is two hundred and forty by one hundred and seventy miles, and is a British crown colony, the prevailing languages are Portuguese, Singalese and Eurasian, but thousands speak more or less English. The capital is Colombo, which has about 150,000 population, of which two thousand are white, and among them are ten Americans. Drs. Arthur and Atkins Smith (brothers) have been here five years. They also have offices at Kandy and Nuwara Eliya. The latter is a health resort, six thousand feet above sea level. They were both graduated from the Pennsylvania Col. Dent. Surgery.

Among other cards in a frame in the most fashionable Galle Face (hotel), their cards appear, viz.: D. Arthur Smith, D. D. S.; W. Atkins Smith, D. D. S., room ten, Grand Oriental Hotel, Colombo; and occasionally this card appears in the newspaper. There are also three English, one German and twenty native dentists; the latter advertise more or less in the newspapers, and their fees are from one rupee (32c) up, according to the wealth of the patient, and we heard that the work was as poor as the price.

Fees of American dentists are about ten rupees each for amalgam or cement fillings, or extracting, and about twenty rupees for a gold filling.

Fees for gold or vulcanite prosthesis vary, according to the ability of the patient to pay. Part of an "ad" in a newspaper here is, viz.: "Our teeth are not so obliging as to decay only in places where we can conveniently reach them with the tooth brush. Odol destroys the microbes and arrests all bacterial and fermentation processes which attack the teeth. It follows that every one who used Odol regularly every day takes the greatest care of his teeth and mouth that scientific discovery has up to the present time made possible." With this "ad" was a "cut" of a cuspid and molar. The only law here regarding dentistry provides that, "Dentists must not administer anesthetics."

Kandy (Ceylon), with a population of about 11,000, has an American dentist, Dr. Hacha, who was graduated from the dental department of the Medico Chirurgical College, Philadelphia. He has been here about one year, and is homesick.

Dr. Wm. Macleod, a Scotchman, who was graduated from the dental department of the College of Physicians and Surgeons, Atlanta, comes here every two months from his other office up in the mountains.

This is the town which has been made famous by containing The Dalada Maligawa (Temple of the Tooth of Buddha), To us the tooth looked like a blunt "cuspid," carved in ivory about three inches long and correspondingly thick. From our present knowledge of human anatomy we fail to see how any human being could have grown such a tooth. The pictures of the tooth make it look more like an incisor than a cuspid. Buddha must have had a sweet tooth, because it is preserved in Kandy.

In the Temple of the Sacred Tooth is an image of Buddha cut from a single block of crystal, and another carved out of a

SACRED TOOTH OF BUDDHA.

BUDDHA.

single emerald. The temple is built of granite, with a large amount of quasi-Hindu ornamentation, and is in fairly good condition, and is often referred to as the Tooth Shrine.

The legend of the Sacred Tooth is viz.: It was brought to Ceylon early in the third century by the Princess Kalinga, who concealed it in her hair. It was taken by the Malabarsin, 1315 A. D., and again carried to India. Years later Bahu Third recovered and secreted it, but in 1560 it was rediscovered by the Portuguese, taken to Goa and burned by the Archbishop in presence of the Viceroy and Court. Not at all discouraged, Wikrama Bahu manufactured another tooth from a piece of discolored ivory. This is very large and is encased in gold bands,

and guarded on an altar in the "holy of holies," and every evening at sunset, when the doors are opened, receives the worship and offerings of flowers from the faithful (women predominating), who crowd the corridors when the evening bells are struck. The herd of one hundred sacred elephants is brought out every year when the tooth is escorted through the city streets in grand procession.

The temple has a courtyard surrounding it, the outer walls of which are decorated with hideous frescoes of the various punishments inflicted in Buddhist hell. The Tooth is preserved

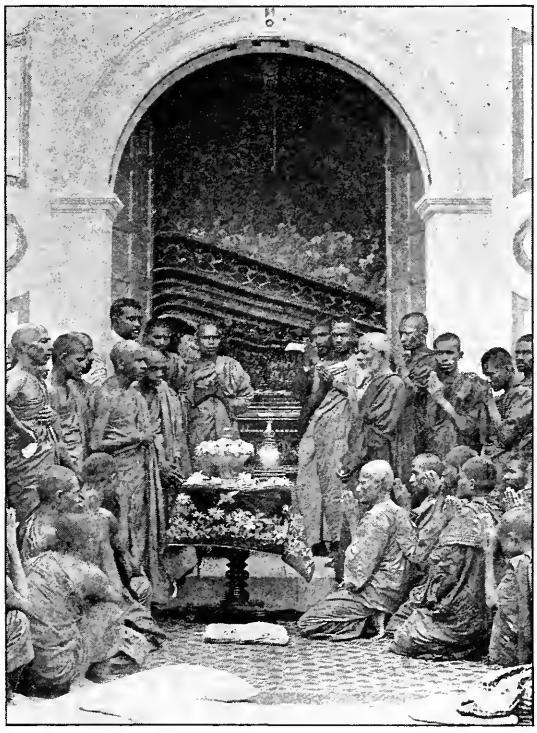
TEMPLE OF SACRED TOOTH.

in a gold and jeweled shrine, covered by a large silver bell, in the center of an octagonal tower with pointed roof.

The kings and priests of Burma, Siam and Cambodia send regular yearly tribute to the Temple of the Sacred Tooth, and more or less reverence is paid to it in India, China and Japan. In October, 1909, the newspapers stated that Dr. D. B. Spooner had recently discovered in an ancient shrine part of the cremated remains of Buddha, who died 482 B. C. Probably this is true, because portions of his remains were buried or entombed in eight different places.

Calcutta, with a population of about 900,000, has five American, four English, and twenty native dentists. Among the former are D. R. and M. L. Smith, graduates of the Indiana Dental College. They have several rooms and assistants. Among the

latter is V. Smith, a graduate of the dental department of the University of Michigan. Fountain cuspidors, foot engines and lathes are in evidence, but some say they use electric engines and lathes. Drs. Smith have their residence, office, laboratory and dental depot in the same building on a good street. In the depot they have goods from White and Ash, and here we met (almost) Dr. F. G. Hawksworth, who is doing this Eastern

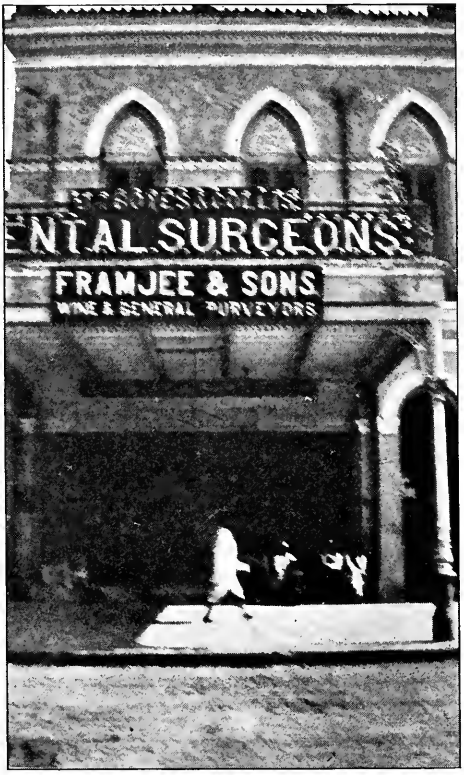


NATIVES WORSHIPING SACRED TOOTH.

country for The S. S. White Company. The Smiths also have a branch office in Darjeeling. Boyes and Collis have the American D. D. S. Wood and Ranger (English) is the oldest firm here. They have a formal appointment on the staff of the Medical College of Calcutta, and receive a salary from the English government for giving some lectures in the college and doing more or less dentistry in the free clinic. They have held the above appointment for several years. Some of the American and English dentists have a "card" in the newspaper. Fees

among these are about viz.: Amalgam or cement filling or extracting a tooth, $1.50; partial set on vulcanite, $10.00; full upper or lower, $20.00. One said he used a centrifugal casting machine. Saw the Cosmos, Brief and Items in one or two offices.

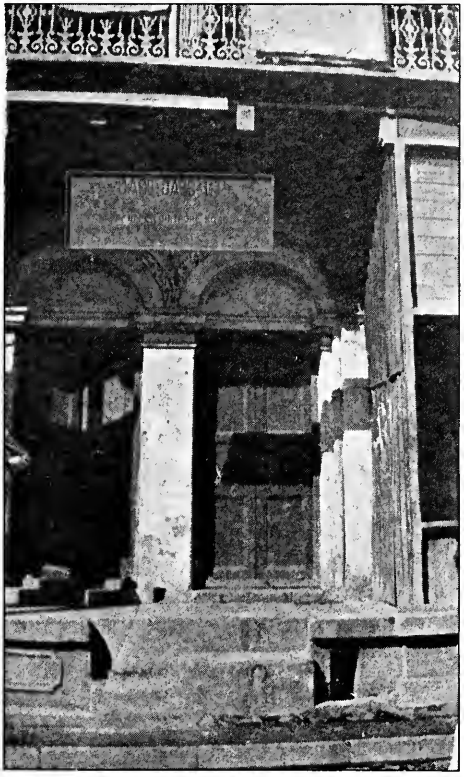
Some of the native dentists worked for a time for some American or English dentist, then they open an office for themselves, as there are no dental laws. They advertise some in the news-



OFFICE OF BOYES AND COLLIS.

papers, and their prices are about viz.: Amalgam or cement filling or extracting, one rupee (32c); vulcanite upper or lower, $8.00; vulcanite with one tooth, $2.00 or $3.00. Most of these natives chew betel nut, a description of which we have already given. Some of them repair watches, etc., as you will see from the following "ad" copied from a newspaper: Pebble Spec should be at once used if there is a slightest defect in your eyesight. Chakravabti Bros., Dentists, Opticians, 27 College street.

The card of another native (old settler), viz.: Dr. P. Haldar, V. L. M. S., Surgeon-Dentist, Teacher, Calcutta Medical Institution, 19 Bowbazar street and 1 Gunga Narian Dutt's Lane, Patriaghatta. Part of a newspaper "ad," viz.: A few drops of "Floriline" on a tooth brush produces a pleasant lather, which cleanses the teeth from all parasites or impurities, hardens the gums, prevents tartar, stops decay and makes the teeth pearly-white.



OFFICE OF DASS, DASS AND CO.

Another newspaper "ad," viz.: Dental Notice. Dr. C. D. Boyes, D. D. S. (U. S. A.), and Dr. Arthur Collis, D. D. S. (U. S. A.), L. D. S., R. C. S. (Eng.), Medalist, Charing Cross Hospital (London), No. 2 Chowringhee. Hours of consultation 9 A. M. to 5 P. M.

Dass, Dass & Co. are native dentists, and we present a picture of their office front, which is three feet above the street and has double doors locked with a padlock.

We saw on sale, Glycothymoline, Colgate's and Graves' dentifrice.

In many places in India a twig of the Nim (tree), after the bark is pulled off, is used as a tooth brush (?), then it is thrown away. About 50 of these twigs can be had for one cent, and they are sold at a few dental depots, and occasionally in the Orient they are furnished free to guests in hotels. These brushes (?) are made from twigs five or six inches long, one end is sharpened to a point, for a toothpick, and the other is split into fine fibres, and when saturated in a liquid is soft enough to use as a substitute for a bristle brush.

Here we purchased a "palate brush," which consists of a small tuft of bristles about the size of the end of an ordinary lead pencil, mounted at a right angle on the end of a bone handle six inches long.

The Bengal Surgical Works manufacture all sorts of surgical, dental and veterinary instruments. J. C. Sirkar, manager. Ashby & Co., dentists, have an "ad" in the city directory, viz.: "High class mechanical dentistry from impression or model; reduced price, superior work; also manufacturers and dealers in all sorts of tooth powder, soap, washes, pastes, brushes and antiseptics, etc. Try them."

Rangoon (Burma) has a population of 325,000, which includes about 5,000 Europeans. R. H. Langdale (Ohio Col. Dent. Sur.), H. B. Osborn (Uni. Pa.), and E. R. Gray are associated together here, and also in Assam and Simla. They have been here for three years, and are doing well. They take the Cosmos and Outlook. Dr. Osborn gave the writer the information herein, and also a specimen of native dentistry, consisting of three incisors carved from one block of ivory which had been worn for several years, being held in place with ligatures which passed through a hole drilled horizontally through the base of the block, the ends of the ligature being tied around the adjoining natural teeth. This specimen was made by a man who combines dentistry and carpentry. It is very badly discolored, because the wearer chewed betel nut.

W. M. Cameron, an American, who graduated in Philadelphia, Pa., just came here to begin practice.

Fees among the American dentists are about viz: Amalgam or cement filling, or extracting a tooth, five rupees (one rupee is thirty-two cents); partial set on vulcanite, fifteen rupees, and

five rupees for each additional tooth up to anything less than a whole upper or lower, for which latter they get sixty rupees. A few plates are made of dental alloy, and a very few of gold, each swaged. The missionaries here (who are largely American) receive a rebate of about one-third on the above fees.

The Chinamen here are among the wealthiest class, and often they will pay for gold fillings and bridge-work. Pyorrhea is prevalent among the natives, and also among the Europeans who have been here for some years.

Dr. Rainsford, an English dentist, practices here, and also two Eurasians, and about twenty natives. Diatoric teeth made by Ash are used very largely for partial and full dentures. No dental depot here. Most supplies come from Smith Brothers, Calcutta.

Native dentists, Chinese included, will mount one tooth on vulcanite for two rupees, and their other operations are in keepings with this attenuated fee. One of them practices dentistry and carves in stone, and here follows the "ad" of another, clipped from the newspaper: "Highest Class Mechanical Dentistry, Vulcanite, Dental Alloy, Gold combinations, Tubes and Gum sections, Repairs to all above, plastic, Gutta Percha, Metallic Amalgam fillings. Punctuality Guaranteed. Best Materials only used. Teeth carefully Extracted Chang Why Sun and Son, Dentists and Photographers."

In India there is no dental journal, no society and no law. An illustration of the way some natives look at dentistry is found in the following: A native came into the office and told Dr. Osborn he wanted to buy an outfit to practice dentistry, and the doctor pointed to his chair, engine, and different instruments, and asked him if he knew what any of them were for. He replied that he did not, so the doctor advised him to abandon the idea of trying to be a dentist. In Dr. O.'s office we saw pictures of Drs. Truman, Kirk, Smith, Wright and Cassidy.

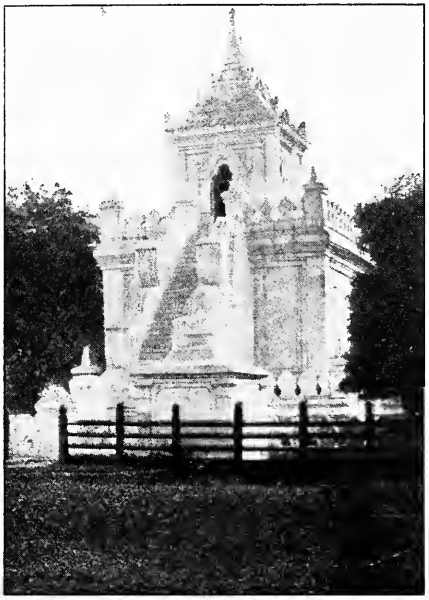
In Mandalay, Burma, in the grounds of the Royal Palace, is a high tower—or temple—which stands inside of the east gate—in which a tooth of Gaudamas Buddah was enshrined.

Singapore (an island owned by the British) has a population of about 300,000, including about 2,500 whites and 1,500 soldiers.

American and European dentists, viz.: E. G. Curry from University Pa.; Naughton from Philadelphia Dental College;

Bowes from Royal College Dental Surgery, Toronto; Butler from dental department Guy's Hospital, London. Some of the above subscribe for the Cosmos or Digest. The Japanese, Chinese and Indian dentists (?) number about one thousand—so a dentist informed me—and we can understand it might be true, because there is no law to prevent anyone from trying to practice, but they are contemplating the attempt to pass a law; neither is there any fee bill among the good, bad, or indifferent dentists.

Some of the signs were, viz.: Ah Sin Shoo Gun, Lady



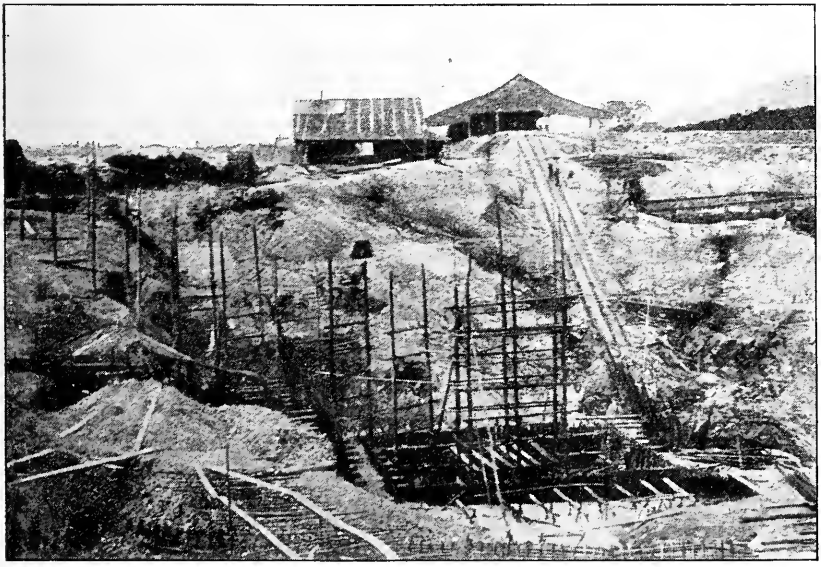
TEMPLE IN MANDALAY.

Dentist; Miss Fambou, Lady Dentist; Fones Brothers, Crown and Bridge Work; Extraction Painless by a Japanese dentist. Living here is expensive, and the best offices are in some good building on a main street.

We saw on sale Glycothymoline, Sozodont, and Colgate's dentifrices.

This is the greatest tin market in the world, because it is found throughout the Malay peninsula and on several adjoining islands. We saw a specimen of ore, in a private collection, from the Bundi mine, which weighed two hundred and fifty pounds, and another in the museum, which weighed twelve hun-

dred. There are dozens of tin (teemah) mines, but at present a large portion of the ore comes from the northwestern part of the Malay peninsula. The companies owning and working the mines are mostly English. The most primitive way of getting tin is by placer mining, which is carried on to a slight extent at this time; another way is "open mining"—digging into a mountain side and picking and blasting away the rocky ore; another way, introduced by the English, is to sink a shaft and use the modern methods of mining. This has only been partially successful on account of the opposition of the natives. The ore obtained by the last two methods is crushed and the impurities removed, then the tin is melted and run into ingots of various sizes. In riding on the cars from Singapore to Johore we saw "open mining" going on. The English have several large companies here which control tin, gutta percha and rubber, of which we secured several specimens. Guthrie & Co., Ltd., with headquarters in London, was established in 1821.



TIN MINES—SELANGOR.

Most of the mining is done by the Chinese on shares, and on an island near Singapore, The Straits Trading Co. have large crushers and smelters getting out tin bullion. The tin from the island of Banka near by is the nearest pure, and it is from this that Ambler's cohesive tin foil is manufactured.

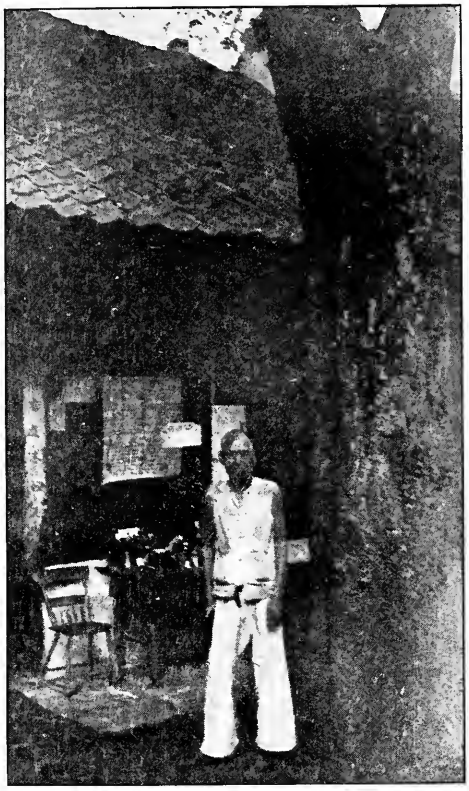
Major Woodruff suggests tin foil as a lining for hats in the tropics, as it is a protection from the chemical rays of the sun. Singapore handles about $50,000,000 worth of tin yearly, and about one-half of it comes to the United States. At present a ton is worth about $700.00, but it varies in price. At a little shop we purchased several rough tin castings of miniature cats, dogs and birds.

Batavia, the chief city of Java (south of the equator, and owned by the Dutch), has a population of about one hundred and twelve thousand. Of this number about eleven thousand are Europeans. There are seven good dentists here, among them, A. L. J. C. van Hasselt, a native of Holland, who studied at home and afterward at the Chicago College of Dental Surgery, where he was graduated in 1900. Then he came here and took an office in a nice bungalow, where he also resides; the office and laboratory are "up to date" in equipment, and he is the first one so far that I have actually seen using an electric engine at the chair. He is practicing (some) orthodontia after the C. S. Case method; there being no dental depot here, he orders a large stock of materials from Roujoux and Tollig, Paris; he subscribes for the Cosmos, and has for an assistant a very bright Chinaman.

There is a Board of Dental Examiners here, composed of three M. D's. and Dr. Hasselt, which gives an examination in the theory and practice, and grants a certificate to successful candidates, but this only permits them to practice in Java. Graduates of dental colleges in the United States or Europe must pass the board here or in Holland before opening an office.

The Japanese are positively required to take the same examination. Probably there are fifteen persons here who call themselves dentists, the greater part of them being Chinese, who charge "any old price" for what they do, which mainly consists of extracting, with an occasional attempt to make a "plate." The sign of one consisted of an oblong shield of thick brass, on one side of which was the name of himself and father, on the other side was painted several Chinese "lucky characters," then the lower part of the brass plate had seven holes drilled through it. Into these holes were tied strings, each of which held seven human teeth, and he wanted ten dollars for his sign, because it had been in the family so long that if he sold it he would lose his good luck. In his four by six office he had

several bottles of medicine (mostly in form of powder), labeled in Chinese. On a shelf we saw some roots and part of a snake's skin; these he uses to doctor his patients with. His dress is a suit of cheap sleeveless Pajamas, and the brass sign referred to shows as a white spot over his right shoulder.



CHINESE DENTIST (?)—BATAVIA.

We called on another cheap Chinese dentist on the same street (but this one had a coat on), and he has a sign like the one just described, but he said he would not sell it, still after considerable quibbling—through an interpreter, which we took with us—he set a fabulous price on it, so we decided to get along without it. It seems to be difficult to obtain a picture of a Chinese dentist, because they are so superstitious. We hired a carriage and a guide and drove six miles to get the picture shown here. This is a sample of the difficulties and expense we incurred several times during "the cruise."

Thus far it has been impossible or impracticable to make these fellows cease their slaughter. Anyhow, they only work on the very poorest classes, who otherwise would not get anything in the way of dentistry.

In the harbor we saw a French steamship, named Lemaire; thus forcibly reminding us of the dentist by the same name who came to America with the French army in 1781.

A large part of the island of Borneo is owned by the Dutch, but the northwestern part is owned by the English, who have large coal mines, and the port is Labuan, with about 1,500 population, including forty-five whites; most of the remainder came from the Malay states or China. There is no dentist here, and as far as we are aware never has been as a permanent resident. About three years ago an English dentist came here and remained a few weeks, during which time he was busy. All the dentistry done here consists of extracting, which can be done by R. E. Adamson (Edinburgh, M. D.), or A. Cleverton (London, M. D.), as they are permanent residents, and also have medical charge of the coal miners. There are no laws restricting the practice of dentistry, and no license is required.

A great many native men and women chew betel nut—a description of which we have given—and we do not see that their teeth are any more than fairly good, as we saw numbers of middle aged and elderly people who had lost one or more teeth, and the remaining ones were more or less incrusted with salivary calculus. We saw several of the business men who were wearing gold shell crowns which they had obtained when in Singapore.

For the entertainment of the six hundred and fifty Americans who were on the "cruise," a band of thirteen warriors were brought to Labuan from the interior, and of all the sights we saw of anything, anywhere, this for us capped the climax. The teeth of the younger members were quite good, none had been lost, but two of the older wild men had lost several. The chief of this tribe was about forty-five years old, and his upper incisors and cuspids had been cut down two-thirds of the way, gingivally, with a stone or half round file, leaving the surfaces quite smooth and crescent shaped. After the prize spear throwing, shooting arrows, sham battles and war dances, we took a "snap-shot" of the chief and his lieutenants.

The idea in cutting the teeth in above manner is to pro-

duce an appearance of ferociousness. This tribe of wild men is called "Head-hunters," because a man is not allowed to marry until he can present the head of an enemy to his betrothed, and when they kill an enemy they cut off the head and carry it away.

The lieutenants' teeth were badly discolored with betel nut and incrusted with calculus, but they had not been filed or ground, and they were somewhat younger and had a full upper and lower dentures. So far as we are aware, nobody has ever

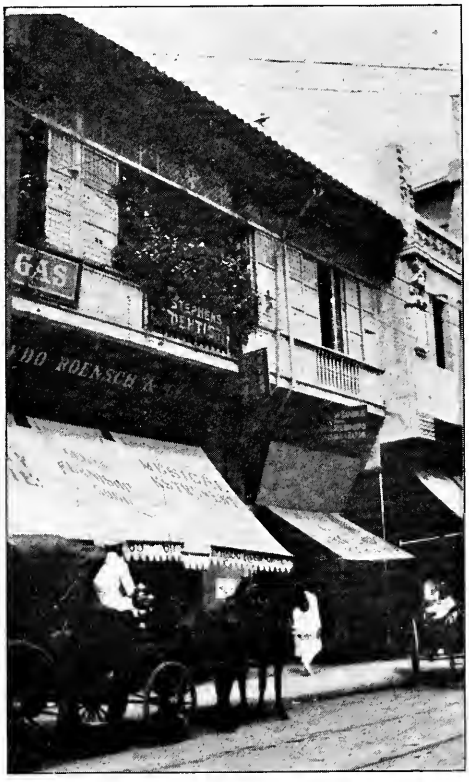
CHIEF OF HEAD HUNTERS AND TWO NEAR CHIEFS.

taken pictures just like the above, and for a great many reasons. The above record is made from personal examination. Considerable rubber is shipped from Labuan. No automobiles here.

Manila has a population of about 225,000, including about twenty dentists, viz.: ten Americans, one Englishman, one German, three Spaniards and one colored man from America. On the other islands there are about twenty dentists. The city directory contains the names of fourteen dentists, among them Mrs. C. Farinas, Chu Lai Chenk, Chu Tze Fung, Kao Zanchung, but none of the fourteen have any special "ads."

José Arevalo (whom we had the pleasure of meeting), the oldest dentist here, has retired in favor of his son, Bonifacio,

who has a large office and two assisants. In the reception room he has curios and bric-a-brac for sale, and he is also president of "Paraluman," a company empowered to purchase lands, raise crops, build their own manufacturing plants, and market the products; he is sending out thousands of circulars printed in Spanish and Tagal asking for stock subscriptions (similar to our style). They show the estimated profit of the company will be forty per cent.



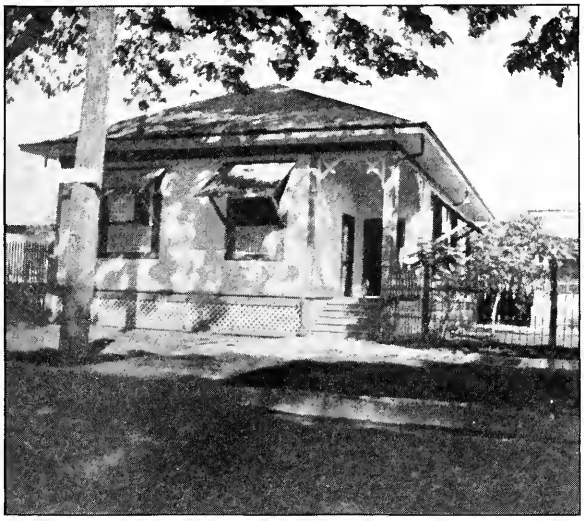
OFFICE OF DR. STEPHENS.

We present a picture of the front of Dr. Stephens' office in the second story of a Spanish building on the Escolta—Main street.

It is said here that the gods prescribe dog's flesh, snake stomachs, verdigris, dragon bones, and powdered oyster shells for the toothache. Some native dentists can do soldering with thin cocoanut oil and a mouth blow-pipe.

In the book store we saw Marshall's and Johnson's text books, and in drug stores Glycothymoline, Listerine, Sanitol.

At Watson's drug store we saw the best supply of dental materials, the majority of which were from the S. S. White Co. Here, in order to keep engine burs, etc., from rusting, they put them in special glass jars, with a hollow stopper which contains large pieces of lime to absorb any moisture present.



OFFICE OF DR. MARSHALL.

The writer had a pleasant visit with Dr. John S. Marshall, the well-known author and examining and supervising dental surgeon, U. S. A., who is doing so much good for our profession and the army. He has been here for twenty months, and has a fine, well equipped office, in which he is carrying on a work which should be heartily supported by all. He kindly furnished us with a set of blanks, such as are used by the army dental corps.

In the army outfit we noted Ransom and Randolph's swaging device for crowns, etc.; Cogswell's rubber-dam holder, Ames' cement, Butler's pluggers and carborundum point, and Varney's pluggers.

The Bureau of Science has a few dental books, and regularly receives dental journals gratis, which are bound and preserved as a nucleus for a library for a future dental college.

There is a dental society here which meets about every

month. Most of the natives and some of the Americans are members of it.

A limited amount of dental instruction is given in the San José medical school, in the Spanish language, and under the dental law those who pass the examinations are entitled to practice in provincial towns where no other Americans are located.

What Dr. Ottofy has done in Manila. In 1904, when he was at the Dental Congress in St. Louis, he made appeals to dealers for dental supplies to equip a dental infirmary for the poor in Manila. In this way he secured $800.00 worth, and this was supplemented by some of his own outfit and a donation by Dr. Newberne. The clinic depended, for a time, on the sisters of St. Paul's Hospital, where it was installed May 1, 1905. For a time all income was passed to the sisters, and they paid a very small salary to a native assistant who worked forenoons. Later the clinic became self-supporting, and the hospital only housed the clinic free of charge, and now there is a small surplus, which will be used to purchase further equipment.

No charge is made for treatment or extraction, but for other operations a very small charge is made (if a patient can pay), but eighty per cent. of the patients pay nothing, and the average charge for each operation is about twenty-five cents.

From May 1, 1905, to November 30, 1909, including the sub-clinic at Billibid prison, opened June 22, 1906, and visited by the assistant every Friday afternoon, the operations numbered 11,779; operations at the prison were free, but some of the prisoners paid small sums from their own funds. The service has proved to be valuable to the government by creating a healthier condition among the prisoners, and thus increasing their usefulness. Dr. Ottofy has asked the authorities for $170.00 with which to purchase an equipment (from The S. S. White Co.) for an office in the prison, and he also asks them to pay a small salary to a native assistant. Mr. George N. Wolf, Director of Prisons, informed Dr. Ottofy (Nov. 11, 1909) that he favors his proposal, and that $170.00 will be expended in an outfit, etc., as has been suggested. There is a young man in prison, convicted for a long term, who was an assistant to a dentist, but he was misled by older persons and joined a band of outlaws, and they were caught; he could help do the dental work and thus lessen its expense.

Billibid prison is the only substantial one on the islands,

and to it all persons, sentenced to a period of years from any of the islands, are sent, and the inmates vary from three to four thousand.

Dr. Ottofy took up the matter of instituting free dental service in the public schools with the Secretary of Public Instruction, who is in favor of the project. The consent of the Superintendent of Schools, and the Director of Public Health must also be obtained.

His plan to get an outfit, is to furnish part himself and ask for donations, and with a small cash surplus from St. Paul's clinic, to purchase the rest. Cement, amalgam, gutta-percha, etc., will be donated by manufacturers in the United States. The above equipment will be placed in one of the schools, and services will be rendered to such children as are willing to receive them, viz.: treatments, plastic fillings, instructions in hygiene, and extracting after school hours. In 1902 he found in 12,458 teeth of school children, that 3,485 were carious, and that the sum total of dental services rendered to these children consisted of three fillings, two amalgam and one gold.

Thus far Dr. Ottofy has not received any pay for his services in doing part of the work and supervising the rest, but he gets satisfaction from the fact that one thousand people yearly get relief from dental lesions through his intervention, notwithstanding they think the Sisters of Mercy at the hospital, and the benevolent government at the prison are the ones to be thanked. He showed the writer a hollow wooden nose, carved by a native dentist, but it was a failure because wax was used to hold it in place. The doctor replaced it with one of vulcanite, held in place with spectacles. At another time he made a nose for a Chinaman, who sold it to a friend who had also lost his nose. Then he returned to the doctor and asked him to make another one free of charge. In another case he made a nose and lip for a woman who had not been out of the house for twelve years. The natives and Chinese are very fond of gold in the front teeth; the dentists and jewelers often make ornaments for them, viz.: a small piece of gold is cut into V-shape and the points are slightly rounded. To the back of this is soldered two very thin half clasps, so that when it is crowded in between the teeth it will hold its place. These ornaments can be changed about the mouth or loaned to friends on festive occasions.

The custom of pointing the upper incisors is prevalent

among the Negritos. The operation is performed viz.: A block of wood is placed on the lingual surface of the tooth and the point of a bolo is pressed firmly against the labial surface and then the bolo is struck a sharp blow with a stone, so that a corner (approximo incisal angle) of the tooth is broken off, and then the operation is repeated on the other corner of the tooth. This makes the six front teeth look something like a saw. Many have this done for "style," but the warriors think it makes them look ferocious.

The Igorots use their finger dipped in sand in place of tooth brushes, and they have a system of barter, the standard being a bundle of rice. This never varies in value and represents a certain amount of food. In India the poorest classes use Cowry shells as a substitute for money; about fifty of them are equal in value to an American cent. The writer purchased some in the country eight hundred and forty miles from Bombay.

Dr. Oliver says that the Moros stain their teeth black with a dye made from cocoanut milk and iron filings. Dr. Sorber says: "Betel-nut chewing seems to be common to Christian and Moro. Among the latter every man carries in his girdle a brass box containing betel-nut, tobacco, lime mixed with a red substance (said to be oxid of iron), and leaves from a kind of pepper plant called 'Buyo.' The betel, tobacco and lime are folded up in one of the leaves and the whole inserted in the mouth. The saliva takes on the color of blood and the teeth are gradually stained darker, until in old age they are practically black. The Moros have a fashion of grinding the labial surfaces of the upper incisors concave with a stone. This practice seems to be confined to males over twenty years of age. No reason for this mutilation was given, except that it was the custom."

The germs of lockjaw are found in the soil, and in some parts of the Philippines the disease is prevalent, but in the human body the germ can only develop in wounds that are not exposed to the air, thus punctured wounds are the most dangerous, and they should be opened and thoroughly disinfected.

The Dental Law, enacted January 10, 1903, provides (in part): That the Commissioner of Public Health shall appoint a Board of Dental Examiners, with the consent of the Board of Health, consisting of three reputable dentists who are graduates from dental colleges, recognized by the National Associa-

tion of Faculties and Examiners in the United States. The Board shall issue a certificate to each one who furnishes proof of receiving a diploma from a legal dental college and in addition passes an examination before the Board. The law does not apply to artisans engaged in the mechanical construction of artificial dentures or other oral devices, nor to physicians and surgeons in legitimate practice. The Board can refuse to issue certificates and also revoke them for good cause. Penalties attached vary from fines of twenty-five to one hundred dollars, and imprisonment for not more than ninety days. Board of Examiners: President, H. C. Strong; Secretary and Treasurer, A. P. Preston; Antonio Vergel de Dros; all residents in Manila.

One of the coming industries on the islands will be rubber and gutta-percha, as the demand for them is rapidly increasing and prices have doubled during the past ten years. The cost of starting plantations is not great; no cultural skill is required, and the best land in the world for the purpose can be had here in unlimited quantities at two dollars an acre.

"In Mindanao rice and fish is the principal diet, and betel-nut chewing is the proper salad course. Chewing betel is a refined practice that gives the teeth the appearance of having swallowed a bucket of red lead. The male popoulation dress on the half shell, a gee string and a cigaret, proving an elaborate uniform. The ladies insist upon a rational costume, and some even go so far as to take the enamel off their teeth."

Canton, a very old Chinese city, with a population of about 2,000,000, has no European dentist, but the Europeans, when they want any dentistry, generaliy take a sail of ninety miles on the Pearl river to Hongkong. There are numbers of native dentists ranging from one who has a reception room with pictures, embroidered screens, carved furniture, emblems of good luck and happiness, down to the one who has a four by six reception room, operating room and laboratory all in one, opening onto the sidewalk in a street six feet wide. The latter had a basket of plaster casts, a little wax, plaster and a few crude tools, and his personal appearance corresponded with his office. His business was extracting mostly, but occasionally he tried to make a partial "plate" on vulcanite. Impressions were taken with common yellow beeswax.

There are no licenses issued to American dentists practic-

ing in Treaty Ports; the dentist simply comes and opens an office. There are no restrictions on an American practicing anywhere in China if he has a diploma from a reputable American dental college. There are no laws or regulations governing anyone who practices dentistry here.

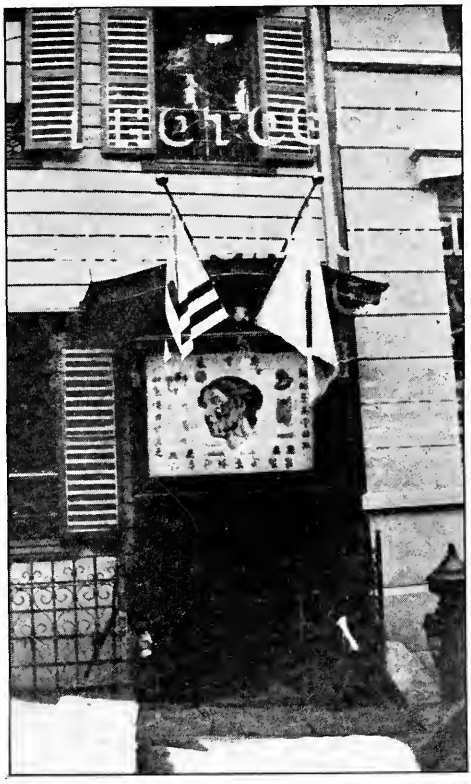
In China a large amount of tin is beaten out into foil, to be used as graveyard money, which the Chinese burn at funerals to give the dead funds to establish themselves in the world to which they are going.

Dr. Faith Sai So Leong is said to be the only Chinese woman who has ever studied dentistry. Ten years ago (when she was thirteen) Mrs. E. J. Nickerson of San Francisco adopted little Sai, who spent many of her leisure hours in the laboratory of her cousin, who was a dentist. She entered the Dental Department of the College of Physicians and Surgeons, and at the end of the course ranked among the highest. She practiced in San Francisco until the fire of 1906, which destroyed her office and equipment, but she has opened another office in Oakland, where she has a flourishing practice.

Victoria, the chief city of Hongkong, an island owned by the English, with a population of about 325,000, has five American dentists: J. W. Noble (Uni. Pa.), who has been here for twenty years; E. Evan Jones (Uni. Pa.) for six years; McKean, Campbell and Smith have been here for shorter periods. Some of these make inlays and use gas, electricity, and compressed air, and each is a law unto himself so far as fees are concerned.

There are six Japanese and about thirty Chinese dentists, who work for any price they can get, and as there is no dental law or fee bill, anyone can try their hands, as proven by the fact that an itinerant dentist (?) goes about the market place extracting teeth and tying them to a string around his neck, and he already has a long necklace. The city directory only gives the names of twelve dentists, and among them are Chaun, Chuckson, To, Tung, Yamasaki. Kwong Sang Hong keeps dental materials, consisting of wax, plaster and a very few teeth. The nearest place to obtain much of anything is at Watson's in Manila, as he has quite a line of White's goods. We saw a number of the natives wearing gold shell crowns. Here is a picture of a Chinese dentist's sign fastened to the wall outdoors. It shows a large glass case containing dental specimens

and a colored chart of a dissection of the fifth pair of nerves. The American and Chinese flags are displayed over the case.



SIGN OF CHINESE DENTIST.

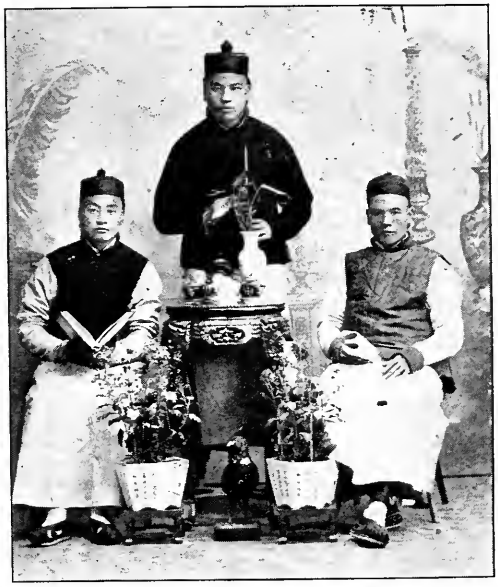
The following picture shows a group of three of the better class of Chinese dentists.

Nagasaki, Japan, with a population of about 170,000, has five dentists, all Japanese. Kinzo Moriyama was graduated from the dental college in Portland, Oregon, and also has a certificate from the Dental Board of Examiners, same state; one side of his card is in English, and the other Japanese, and he is called the American dentist.

K. Fujimoto studied dentistry in Tokio. He has two Morrison chairs, three foot engines (one a White), a fountain cuspidor, a large assortment of instruments, and teeth from I. Shikusawa's porcelain teeth factory, Nagoya, Japan. All of these teeth are diatoric, and some of them are a shiny black, as the custom of married women wearing black teeth has not entirely

disappeared. We brought a set of these black porcelain diatoric teeth home with us.

They say that when a girl gets married she has her teeth stained black. We saw a few females with the upper and lower front teeth black, but in this city they were scarce, so the style is falling into disrepute, or else there are very few married women here. A dentist here said they painted them with a solution of iron as often as necessary in order to blacken them, and that he had often been asked to blacken them, but he declined,



CHINESE DENTISTS.

and whenever possible he refuses to mount black artificial teeth. Among his teeth were several sets of S. S. White's, and none of them were black such as they formerly made for Japanese trade.

One dentist notes in his "ad" that, "Only up-to-date instruments used." He showed the writer a lower set mounted on celluloid, but said vulcanite was generally used. Here we purchased a finger guard, made of heavy brass in cylinder form, graduated in size and made of three pieces jointed together, to be used on the first finger of the left hand when extracting or filling, so that if the patient tried to close the mouth they could not bite the dentist's finger. We also purchased a long horn

handle tooth brush, with the center of the handle cut down so thin that is could be bent into half a circle for a tongue scraper. In the stores we saw on sale Euthymol, Calox, Sanitol, Colgate, Lyon's dentifrices. A dentist here had Hollingsworth's crown and bridge system, and White's swaging apparatus.

Kobe, Japan, has a population of about 275,000, including two American dentists, Drs. Perl and Richmond, who were graduated in the United States, and one native, who was graduated from the dental college in Portland, Oregon, and about thirty who have Japanese licenses. Dr. T. Asahina was born near Kobe, graduated from the dental department of the University of California in 1903, and has a certificate from the State Board of Dental Examiners, practiced in San Francisco until the earthquake, when he lost his office and equipment, then he came to Kobe. His appointment card, viz,. "Payment is expected for all professional services as soon as completed. Patients are expected to keep their appointments punctually or to give twenty-four hours' notice, as the hour specified will be reserved for them, and necessarily a charge must be made for time lost." This card is printed in English, but his calling card is printed in English and Japanese. He calculates to make from ten to fifteen yen per hour (one yen is fifty cents, U. S.). Extracting one tooth, two and one-half yen; one plastic filling, five yen; one crown, fifteen yen. He was in St. Louis at the International Dental Congress, 1904. He has an up-to-date office. Only a very few dental goods are kept here, as Osaka is the base of supplies.

In addition to the above, there are fifty or one hundred fakirs who extract teeth and try to make "plates," but they are so difficult to get hold of and prove anything against them, that nowithstanding the law they go unpunished, unless they injure a patient so seriously that he (or she) has them arrested, and semi-occasionally this does happen.

Osaka, Japan, is 2,500 years old, and has about 900,000 population, including about seventy-five native dentists, three of whom studied in the United States, and many others have diplomas from one of the dental colleges in Tokio. One of the leading dentists is Dr. Nishimura Sukezo, who is president of the dental society which has about fifty members.

Kioto, a former capital of Japan, is 1,100 years old, and has about 360,000 population, and several good native dentists

(about sixty), among them Dr. T. Motonaga, who attended the International Dental Congress at St. Louis in 1904, and also Dr. F. Noka, who has opened a private dental school. There is also a dental society here. Dr. Motonaga, who was formerly in Honolulu, has a license from the Dental Examiners, signed by J. M. Whitney, formerly of Cleveland, O.

Kamakura, the ancient capital of Japan, fourteen miles from Yokahama, has a population of 1,600, all natives, but no dentist. Anyone requiring dental services goes to Yokahama. This is the home of the colossal bronze statue of Buddha (Diabutsu). cast in 1252. It is forty-nine feet seven inches in height, and ninety-seven feet two inches in circumference, and has a mouth three feet wide and eyes of solid gold.

This Buddha is a immense sitting figure, made of bronze plates so fitted together that it looks as though it were carved by a sculptor, and forming altogether one of the great art works of the world.

The world-famous temples of Nikko, Japan, are an assemblage of Japanese fine art works which are more beautiful than all others in the Empire. "Do not use the word magnificent until you have seen Nikko," which has a population of about 3,000, all natives, but no dentist; if anyone has dental operations made, they go to Tokio. We saw a few wearing gold shell crowns.

Nikko is the name of a valley which contains several towns with different names. It is two thousand feet above sea level and a picturesque summer resort. A railroad runs through the only street, not to accommodate passengers, but to haul copper from the mines.

Tokio has a population of about 2,000,000, not including about 3,000 foreigners. There are two hundred dentists, who have a license to practice; twenty of these are good and the rest fair. There are no native American dentists here, but there are thirteen Japanese who were graduated from American dental colleges. The city directory contains the names of only four dentists.

Some of the dentists in Tokio have their cards printed entirely in Japanese; some entirely in English; some have Japanese on one side of the card and English on the other. Dr. S. T. Teraki's card states, "Practice Limited to Orthodontia." He graduated in the United States, and attended Dr. Angle's

Orthodontia School. He is the only one we met who practices this specialty alone.

In many dental offices in Japan, we saw cigarettes on the reception room table, and it is the usual custom for them to serve visitors with a tiny cup of good tea and delicate, artistic wafers.

This is a picture of a native Japanese dentist in front of his office and residence in Tokio. His wife has *two* of their children on her back.

JAPANESE DENTIST AND FAMILY.

There are several dental dealers and a few manufacturers in Tokio, but probably the largest is the Japan Dental Manufacturing Co., which is a combination of six former dealers. The company has a branch in Shanghai. They copy our chairs, instruments and appliances, but still the materials produced by White and Ash are in demand here.

Dr. Takayama, dentist to the Emperor and Empress, studied dentistry with Dr. Vandenburg of San Francisco.

Dr. Ichinoi, dentist to the Emperor and Empress, was graduated from the Philadelphia Dental College.

Dr. S. N. Isawa, dentist to the Crown Prince, was graduated from the dental department of Harvard University.

Dr. S. Shimura, who was formerly a student at the dental college in Cleveland, and later was graduated from the Indiana Dental College, but now of Tokio, is doing the public great good by writing articles on "The Care of the Teeth," for The Ladies' World of Japan. Also in this magazine he has "Questions and Answers About Teeth." Any reader sending him a question finds it answered in the next issue. In one of the copies we saw a group picture of the doctor and his wife and son. We also note that he has a fine practice and up-to-date office, and has patents, viz.: A wire frame covered with gauze, to be worn by the dentist while operating. Pat. in Japan; Tooth brush sterilizer, Pat. in Japan; Casting Metal Cusps for Crowns, Pat. in U. S.

This picture shows Dr. Shimura (at the left), wife, little son, mother and servants, in front of his office and residence, which is decorated with the American and Japanese flags, in honor of the visit of six hundred and fifty Americans to Tokio. The doctor was Secretary to the National Commission of Japan for the fifth International Dental Congress, and Secretary of the Tokio Dental Society.

Fees here among good dentists are about viz.: Gold crown, five dollars; amalgam filling, two dollars; Richmond crown, eight dollars.

During the Russo-Japanese (1904) war, about ten dentists were employed in the army and about six in the navy. This was the first time Japan had employed dentists in this manner. Dr. S. Shimura served in the army for one year and was treated as a colonel in rank, and at the close of the war the Emperor gave him a badge of the sixth order, which ranks as colonel, and the Japanese are to treat him as a high official of Japan. No fixed salary was paid him, but he asked fees for operations made for the soldiers, and in one year they amounted to two thousand dollars, which was paid by the government.

While in Tokio we had the honor of delivering a lecture before the Odontological Society of Japan, Dr. Shimura acting as interpreter, for only a very few could understand English. He also in a happy way introduced the speaker, and be-

fore adjournment Dr. Teraki made a congratulatory address. Dinner at the best truly Japanese restaurant in Tokio, closed a memorable day. The above society publishes reports in pamphlet form. It is a scientific body only.

Dr. Shimura informed me that his father was the founder of the first dental school in Japan. Being a lawyer, he obtained the assistance of his friend, Dr. Ishibashi. The faculty numbered three, and taught general anatomy, physiology, chem-

DR. S. SHIMURA.

istry, pathology, dental pathology and therapeutics to about fifty students. The school was closed in 1895, after an existence of eight years.

About 1880, Dr. Takayama of Tokio studied dentistry in the United States, and on his return was appointed dentist to the Emperor. In 1889 he established the Tokio Dental College, which about eleven years later passed to Dr. Morinosuke Chiwaki, the present owner and president.

The college publishes a catalog, and also a journal in the interest of the college, which contains the "ads" of three dental colleges in the United States, and several manufacturers of dental materials, among them The S. S. White D. M. Co. has four

DR. TAKAYAMA.

DR. CHIWAKI.

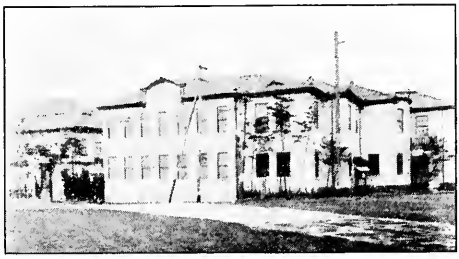
pages. Besides these, Colgate's cream and Glycothymoline are advertised. The United States office for "ads" is 24 Stone street, New York.

Most of their text books are issued by the college and are printed in "Journal style," and consist largely of translations and "cuts" from United States dental text books and journals. This holds true in all branches. The books are entitled, "A System of Modern Dentistry." Among thirteen subjects taught, we find orthodontia and oral surgery. The catalog is entirely Japanese, but some of the "ads" alluded to above are in Japanese and English.

In one of the text books is a translation (accompanied with the illustrations) of "The Chemistry of Vulcanization and the Double Vulcanization Method," by Dr. G. H. Wilson of Cleveland, O., which he wrote for the American Text Book of Prosthetic Dentistry.

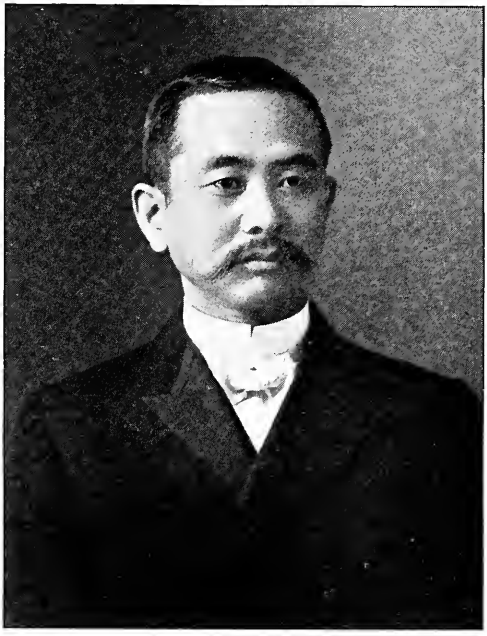
The college is open all the year day and night, except Sunday, and a few days in the summer and winter. The day school has about two hundred students, and the requirement for admission is graduation from a middle school. (This school is similar to high schools in the United States.) A student can enter any time and begin as a freshman, and at the end of three years he receives a certificate, endorsed by the president. This entitles him to practice anywhere in Japan. The yearly school fee is

twenty-five dollars. The night school has about two hundred students, and they can enter any time, and no requirements are



TOKIO DENTAL COLLEGE.

necessary, but if they want to graduate later on, then the time spent in night school is not counted. This night school grants no certificates. The fee is fifteen dollars per year.

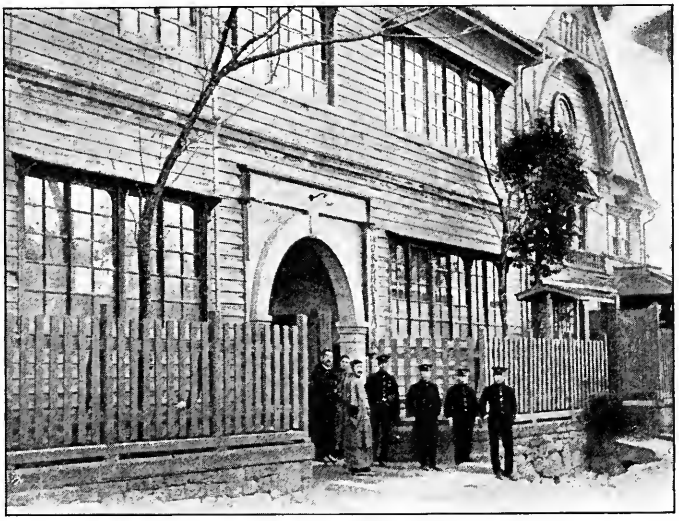


DR. NAKAHARA.

Dr. Ichigoro Nakahara is the president and owner of the Japan Dental College (Tokio), recently founded. What has already been noted by the writer about requirements or no requirements for admission, school days and nights, certificates, fees, etc., at Tokio Dental College applies equally well here,

except that graduates must pass an examination before the Government Board.

This school has about three hundred students and seventeen teachers, among whom are Drs. Hara, Suzuki and Okubo, graduates from United States dental colleges.



JAPAN DENTAL COLLEGE—TOKIO.

The New Dental Record is published in the interest of the college (all in Japanese except an "ad" of a dental firm in Tokio), and is the official organ of The Nippon Society for Dental Education, the Alumni of the Nippon Dental College, etc., and it contains articles on Dentistry, Oral Surgery and Medical Miscellany by members of the Faculty, as well as translations from writers in the United States.

The colleges use blanks and "cuts" similar to ours for keeping the "Patients' Record," etc.

Formerly females were allowed to attend the dental colleges, but at present they are not.

DENTAL LAW OF JAPAN, GRANTED MAY 1ST, 1906.

The candidate for practicing dentistry must secure a license from the Minister of the Interior Department of the Japanese government, and they must possess one of the following qualifications:

(a) The candidate must have been graduated from a dental school recognized by the Minister of Education.

(b) Those who passed the examination before the Dental Board of the Educational Department of the Government.

(c) Those who have been graduated from recognized dental schools in foreign countries or possess a license to practice in foreign countries.

Second. The following persons cannot obtain a dental license:

(a) One who has received a heavy criminal sentence.

(b) One whom the Court has declared a financial bankrupt.

(c) Under twenty years of age—Deaf, Dumb, Blind.

Third. The license may or may not be granted to those persons guilty of medical malpractice.

Fourth. In the Interior Department there shall be a book of record for dental licenses.

Fifth. Dentists are not allowed to give a patient a prescription or drugs without diagnosing.

Sixth. Dentists must have a record book and keep the name, age, address, business, name of disease, and their treatment and drugs used. This record must be preserved for ten years.

Seventh. Dentists are not allowed to advertise any false fact, or use any words to make his ability look great, or to mention that he has any secret method or treatment.

Eighth. Dentists may organize a Dental Association. (The Minister of the Interior prescribes the rules for the Association, as it is a legal body—The Dental Society of Japan—for business purposes. The society has about ten branches.)

Ninth. The Dental Association can offer a petition, or make answers to the government's questions concerning medical prophylaxis in dentistry. (This means that the dentist has a right to say what constitutes prophylaxis.)

Tenth. If any dentist is against Act 2 (a), (c), his license shall be taken away from him.

If a dentist commits a criminal offense he shall be arrested or prevented from practicing for a certain length of time.

Eleventh. If any person practices dentistry without a government license, or offends against Nos. 5, 6, or 7, he shall be fined not more than one hundred yen ($50.00).

Very recently the Tokio Dental College has been recognized by the Minister of the Educational Department, so that graduates from this college are not obliged to pass a government examination as formerly. Examination began in 1884.

There are about 960 dentists in Japan, including about twenty United States graduates. Besides these there is about the same number who were in practice before the law was enacted.

Dentists practicing outside of Tokio depend largely upon the printed transactions of The Odontological Society for their advancement in dental science.

Yokahama, Japan, has a population of about 300,000 natives, 3,000 Europeans and Americans, and 6,000 Chinese. The American dentists are: A. G. Smith (Phil. Dent. Col., 1886), who has been here for twenty-two years. He was originally from Ashtabula, Ohio. M. A. Howe, M. D., came here from Oregon twenty years ago. E. O. Wolf (Uni. Calif.) has been here for several years. All of the above have up-to-date offices and are doing well. They subscribe for the Cosmos or Items or Pacific Dental Journal. They use their own judgment in regard to fees. There are about thirty-five Japanese (all kinds) dentists, and as there is no dental depot, they send to Tokio or San Francisco for supplies. The law requires them to attend the dental society here, but only the natives comply with it.

There is a temple here dedicated to the Buddhist Goddess Kishimojiu, the mother of Demons, and it is customary when a child is sick or has the toothache for the mother to pray Kishimojiu for a cure, and when the cure is obtained, thanks are given by offering some pomegranates to the Goddess Mother.

At the crematory here after the incineration—sometimes the teeth are sent to the former home of the departed, and the ashes are buried in the place.

The custom of women of Japan blackening their teeth was in vogue in 920 A. D., though its origin is not clearly known. In the mediæval ages the custom was prevalent among the courtiers and samurai. Many warriors of the Taira clan had their teeth blackened; so did Goritomo, leader of the Minamoto clan, who conquered the former. The practice was prohibited in the case of men in 1870. Formerly every married woman in Japan had her teeth blackened, until the present Empress set the example of discontinuing the practice, but occasionally a "black-toothed" woman can be seen—notably in the small cities and towns—and semi-occasionally one sees a "black-toothed" man. Formerly so soon as a girl was married her teeth were blackened, her eyebrows shaved off, and her hair was done in maru-

mage. The first custom has been almost discarded; the second is often resorted to; the third is universally in vogue. It was considered as part of womanly etiquette that a wife should finish her tooth-blacking, which was to be done twice a week, early in the morning while her husband is in bed.

Recipe for tooth-blacking: To three pints of warm water add a teacupful of sake (wine made from rice), then some pieces of red-hot iron; let it stand six days, then there will be a scum on top. This must be poured into a small teacup and placed near a fire, and when warm add powdered nut-galls and iron filings and warm again. The liquid (ohaguro) is painted onto the teeth with a feather or soft brush, and after several applications the desired color will be obtained.

In Tsuna, when there is a young bachelor who can support a wife, his friends decide which girl in the village shall occupy that position, then they try and coax her to go to his house, but failing in this method, they proceed to carry her to their friend's house by force. Here she is required to blacken her teeth with ohaguro; if she refuses one of the men blows the ohaguro into her mouth from his own, while another holds her. This concludes an engagement, which later is followed by a formal ceremony.

In Japan, the saws which the carpenters use have the teeth made so that the saw cuts when you pull it towards you, on the same plan as our saws for separating teeth. Maybe that is where our dental manufacturers obtained the idea. The Empress of Japan, although she was brought up and educated in the old-fashioned way, has adopted modern ideas with great ease. She does not have shaven eyebrows and blackened teeth like her predecessor of 1801.

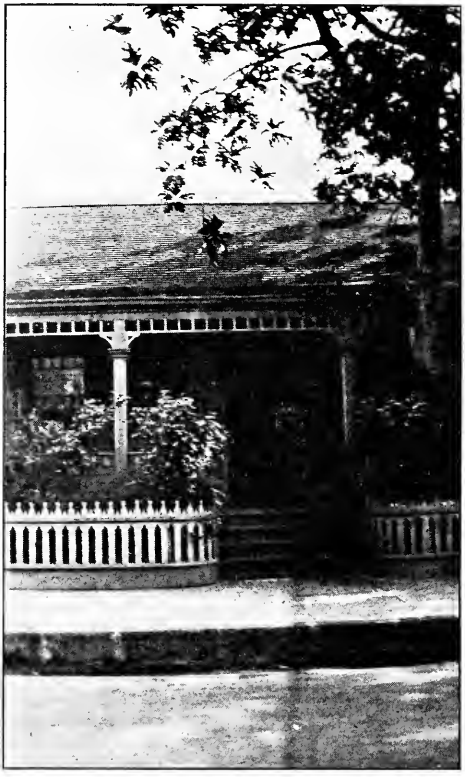
All Japanese books are written and paged from right to left, and the reading matter appears in vertical columns, beginning to read at the top of the first right hand column, and when finished, then begin at the top of the next column at the left, and so on.

Japan produces considerable tin ore, mostly obtained from placer mining. When in Tokio we procured a good sample in a store where nothing but minerals, shells and fossils were kept.

The population of Honolulu is viz.: Natives, 14,000; Japanese, 12,000; Chinese, 6,300; Portuguese, 5,400; Americans, English and Germans, 4,300. There are nineteen dentists, all

Americans, we believe, and all but one have graduated from dental colleges. Such a remarkable condition we have never found anywhere else.

J. M. Whitney, formerly of Cleveland, was the first dentist here, and he came in 1869, about one year after graduating from the Pennsylvania Dental College, and for fifteen years he was the only dentist on the islands. His office is in the Boston



OFFICE OF DR. ANDERSON.

block, which would be a credit to any modern city, and the windows of the operating room look out upon the finest scenery we have ever viewed from any dental office window in our cruise of 30,000 miles.

Dr. R. W. Anderson was the second dentist who came here, and we present a picture of his office on one of the main streets.

The latest comer is Hugh B. Mitchell, who was graduated from the dental college in Cleveland, 1894. His office is in the Young block, which cost $1,500,000.

Eight islands of this group are inhabited and the combined population is about 150,000, and outside of Honolulu in the large towns there can be found one or two dentists.

The Hawaiian Dental Association meets in Honolulu every three months, and nearly all the dentists are members, but only about two-thirds are constant attendants.

All the dentists have some journal. We saw the Summary, Cosmos, Items, Digest and Pacific.

The majority have well equipped offices, using electricity, compressed air, etc.

The territory of Hawaii on April 25, 1903, enacted a dental law, which provides (in part), viz.: Licensed physicians and surgeons may extract teeth and perform surgical operations.

The Board of Dental Examiners (3) shall be appointed by the Governor, and consist of dentists recommended by the Dental Society of Hawaii.

In order to enter practice, one must be graduated from a dental college and also pass an examination before the Board, which for sufficient reasons can revoke a license.

Dental operations shall not be performed by an *unlicensed person* under cover of the name of a licensed dentist.

The law does not provide for artisans doing "mechanical work" or extracting—as we understand it.

Any person who performs an operation pertaining to dentistry, for the purpose of advertising business, medicine or instruments, whether gratis or not, shall, upon conviction, pay a fine of two hundred dollars. Fines for other violations are $500.00.

This is a picture of a wax head in a glass case, fastened to the wall outdoors as a dental sign. The mouth is slightly open, and the head contains "clock work," so that seven different kinds of teeth, from good to bad, are shown in rotation for one minute each, and so it goes on, so long as it is kept wound up.

DENTAL SIGN—LOS ANGELES.

DENTISTRY IN FOREIGN LANDS.

By Henry Lovejoy Ambler, M S., D. D. S., M. D.
Cleveland, O.

[*Reprint from The Dentist's Magazine, Sept. and Oct. 1908*]

The White Star Steamship Arabic left New York, February 6th, 1908, under the management of Frank C. Clark, with six hundred and fifty passengers, bound on a cruise to the Mediterranean and the Orient, and taking a southeasterly course, arrived at Madeira, a province of Portugal, in eight days. Funchal, the main city, beautifully set in a background of lofty hills, has about 50,000 inhabitants, including seven or eight hundred English, but the natives generally are in a state of ignorance and superstition. Here the writer called upon Jayme De Sa, Surgeon Dentist, who had an office on the ground floor in a building fronting on a small square in the business part of the city; he had a suite of plainly furnished rooms and a modern dental chair; his sign, which was about ten feet long, was located over the front windows. According to the laws of Portugal no one can practice without passing an examination in the medical schools of Lisbon, Coimbra or Oporto.

In Gibraltar, the majestic, the impregnable fortress, the key to the Mediterranean and to the commerce of nations, now owned by the British, and with a population of 28,000, we saw three dental signs, and one was, viz.: "Barber—Shampooing—Teeth Extracted."

The island of Malta is the home of the invincible "Knights of Malta," and a bulwark of England's naval supremacy. Valetta is the principal city with 80,000 inhabitants: a large number of the natives are ignorant and superstitious. The English garrison, fleet and residents number about 15,000 and they seek the services of the dentist much more than the Maltese.

There are two English and four native dentists here. The Maltese goldsmiths and artificers are justly praised throughout Europe. In a museum we saw some small pieces of gold foil, which, together with some gold idols about one inch long, was taken from a Phoenician tomb in Italy; these pieces of foil were irregular in form and covered from one-half to one and one-half square inches, and were about equal in thickness to our number thirty gold foil. No one can practice without a license from the government.

Athens has been called "The eye of Greece, mother of arts and of eloquence," and has about 150,000 inhabitants who for a large part are intelligent and cultured. In proportion to its size and wealth Greece exceeds almost every country in liberality toward education; thus we find a goodly number of dentists, many of them natives. A lady who was a member of our "cruise," went to one of the dentists, who proved to be an Englishman, and he treated a tooth for her and declined any fee, saying, "You have good American dentistry in your mouth and it is a pleasure to look at it."

One sign we saw, viz.: Dentiste de la cour Royale, and of the Exposition." Here in the Florida museum are a few specimens of ancient dental instruments. In order to practice, one must pass an oral examination and obtain a license from the Secretary of the Sanitary Department. There is no dental college here, and Athens has about thirty dentists, mostly natives.

Our next stop was at Constantinople, which sits "at the meeting or two seas and two continents like a diamond between sapphires and emeralds," with a population of 1,125,000, of which one-half are Turks, one-fourth Greeks, the rest being Armenians, Jews and other nationalities. This city has a very few American dentists; among them are Dr. McLean and two brothers by the name of Faber. Among the names we saw on dental signs were Gari, Hayon, Nathanson and Kyrakida. We saw a sign about eight feet long that had the dentist's name in the center, and at one end a picture of the head of a man without any teeth, and at the other end the same head (mouth) with artificial teeth, on the plan of before and after, as seen in patent medicine advertisements. Another sign about ten feet long had the dentist's name in the center, and at one end painted forms of molar teeth, and on the other end forms of single rooted teeth. My Turkish guide said that some dentistry was taught at the Imperial medical school, and that every dentist was obliged to obtain a certificate from these authorities before he could practice; he also said that some of their people went to Greece to study dentistry. If a foreigner wishes to practice here he must first apply to the resident consul from his country and present to him his diploma, certificate, or whatever documents he may have showing his right to practice where he came from, then the consul sees the Turkish government which, after much delay, red tape, etc., grants to the applicant, through his consul, a permit to practice. It is under-

stood that the candidate must pass a short examination before the Board of the Imperial Medical School. Constantinople has about sixty dentists of many grades and nationalities, viz.: German, French, Italian, Greek, Hungarian, Roumanian, Armenian and Jewish.

Smyrna—the lovely—is the chief city of Asia Minor and one of the oldest cities in the Orient. It has a population of 225,000; among the names we saw on dental signs were, Rialdi, Gazel, Fazei, Mangar and Barapati. We met Dr. N. D. Nicholaidis, American Surgeon, Dentist and Stomatologist (of the Philadelphia Dental College and Hospital of Oral Surgery, Philadelphia, Pa., U. S. A.) Office hours 9-11:30, 2-4, Sundays and Wednesdays excepted. This is the way his card—printed in English—reads; one peculiarity about the card is that it does not give any street or number; perhaps this is partly accounted for by the fact that he has always resided in Smyrna with the exception of five years he spent studying dentistry in the United States, where he became a naturalized citizen. There being no street address is further accounted for by his father, who is dentist to the King of Greece—having an office and residence at the same place, 36 street of Roses. They have a beautiful suite of offices furnished with rugs—for which Smyrna is headquarters for the world—oil paintings, inlaid wood, bronzes and bric-a-brac, but, best of all, a complete modern dental equipment from the United States, and they are the only ones in this part of the world that administer nitrous oxid. In Smyrna we went into several bookstores and inquired for books about teeth, but the only thing we found was an elementary physiology printed in Arabic, which contained a paragraph which said there was a certain kind of plant which grew in the desert, and if you took it and made a decoction and used it on your teeth they would never ache or decay.

We also visited a quack dentist on a side street, and he had two small rooms into which it was only one step from the sidewalk, and the door was wide open, so we stepped in and my guide told him the writer was a dentist from the United States, and then asked him for his card, which has in the center a "cut" which shows a full upper denture surrounded by extracted teeth, turnkeys, forceps, hooks, punches and lances; on one end of the card appears his name and address in Turkish and French, and on the other end it is in Greek; he had three common kitchen chairs, in one of which was a native for whom he was making a partial

upper denture, and on the floor sat another who just had a tooth extracted, and on the wall were several shelves filled with plaster casts; evidently he only extracted teeth and made vulcanite work. When my guide told him I was a dentist, he said, "What do you have to sell?" The guide replied, "Nothing," and he seemed quite disappointed.

Caifa (Haifa) in Syria, is a rather uninteresting place of 12,000 inhabitants, half of whom are Moslems. Here we only saw two dentists, Alex. A. Tawil and L. E. Braun, Zahnarzt, who had a sign which, at the height of one story, was suspended and reached across the street.

Jaffa (Joppa) in Palestine, is one of the oldest ports in the world and has about 35,000 population, two-thirds being Mohammedans; here we only saw a very few dental signs; among them Mlle. Kariste, Dentiste.

Jerusalem—the Holy City—has a population of about 60,000, of which 41,000 are Jews, 7,000 Moslems and 12,000 Christians. The dentists are, viz.: One Armenian, one Greek, one Italian, one Arab, two Germans and two young men from the United States who, after coming here, took up the study and practice of dentistry, educating themselves as well as they could by studying "Harris' Principles and Practice of Dental Surgery," and the *Dental Cosmos,* then they purchased materials and went to work, as there is no law preventing anyone from opening an office, still if a foreign dentist is going there to locate, it is better for him to apply to the resident consul of his country, and request him to see the government officials and obtain permission for him to practice. One of the dentists we called upon was a German and he was called the best one there; he gave us his card, on which is printed his name and address in English and Arabic. Among the names on dental signs we saw, Retzlaff, Bertoldi, Kahnsky, Brummerich, and Susnitski, who has his daughter as an assistant. Most of them have large signs varying from three to eight feet in length. Here is a field for a good American dentist and his wife (or a lady assistant), as he would not be allowed to operate for Mohammedan women.

Cairo, the capital of Egypt, and the largest city in Africa, has a population of 700,000, composed of Copts, Fellahins, Berbers, Jews, Bedouins, Nubians, Armenians and 35,000 Europeans. The city directory contains the names of forty-five dentists, and for nationality are, viz.: Two American,

three English, two French, six Germans, ten Syrians, seven Armenians and fifteen Egyptians; in this enumeration is included two Misses and one Mrs. Some of the names we saw on dental signs were, viz.: DeBons, Callery, Demird-Surgeon Dentist, who had a sign about ten feet long, and Dr. Gatineau, who placed in a drug store window, for an "ad," a glass covered frame about ten by twelve inches which contained twelve macroscopic sections of human teeth and six teeth with gold crowns. Dr. F. H. Henry, a graduate of the Kansas City Dental College, is located here on Kasir E Nil, and is doing well; he said that in order to obtain a permit to practice, he went to the American consul here and showed him his diploma and the consul gave him a written recommendation to the head of the Sanitary Department, Dr. W. P. S. Graham, an Englishman, to whom he presented his diploma and the consul's letter of recommendation, and then he granted him a certificate to practice. Sabas J. Mohbat and his brother have a dental depot here, which is a branch of one they have in Beyrout, Syria. Their card is printed in Arabic and English. Their father opened business here forty-eight years ago, keeping a large line of hosiery on one side of the store and dental materials on the other, a custom which the sons still maintain. In looking over their stock we found that most of it was from Ash & Sons, London, with only a few things from S. S. White and the Consolidated Mfg. Company.

The writer went into several book stores and inquired for works on dentistry, but only found a small one on "Dental Anatomy," printed in French, price, sixty cents; he also visited the large libraries with no better success; in fact, the librarians seemed astonished when he asked for such books. At the great Khedival library we had the pleasure of meeting the librarian, who was a German, and he had a thorough search made, but in his letter to us of a later date he said: "I am sorry to see that we have nothing about teeth."

At the wonderful Egyptian Museum—a building of the Greco-Roman style, which cost one million dollars—can be found the priceless relics of antiquity; here we saw a large granite bust belonging to a statue representing the Pharaoh Menephtah (1368 B. C.); it is recorded of this man that he had the toothache so much that he was a very bad ruler; at all events, we have his picture. We also obtained a small terra-cotta figure about one and one-half inches long which is gilded on one side with thin gold

leaf; the figure represents the body of a man with a jackal's head; this shows that he was a nobleman by the name of Amenophio, who was entombed 1700 B. C. It was the custom to place in the tombs of the wealthy a variety of small bric-a-brac, jewelry, etc., and this accounts for the above figure being discovered.

Rome, the "Eternal City," has been one of the great world centers of conquest, religion and art through nearly 3,000 years, and now contains about 464,000 population. In the directory there are forty-five who are classed as Mechanical Dentists and also Surgeon Dentists, and twelve are classed as Mechanical Dentists, and the names of the latter indicate that they are natives. Among the prominent American dentists are the Drs. Chamberlain, the eldest of whom practices for several months yearly in London. Dr. A. T. Webb is also a well-known American. Clara Bettman and Anna Baum, American Dentist, are the only lady practitioners so far as we are aware.

There is a Medico-Surgical Institute which gives a polyclinic, including dental treatment, from 8:30 to 9:30 a. m. daily.

A *private* practitioner has an immense sign, viz.: Dental Institute and Prosthetic Dentistry. Some of the signs are from twelve to fourteen feet long.

From the city directory we copied, viz.: "Doct. S———, Dentist, Treats Maladies of the Mouth and Teeth. English spoken."

"Doct. A———, American Dentist, graduate Pennsylvania College of Dental Surgery."

"M———, Specialist for Teeth, and Artificial Teeth." This is accompanied with three "cuts," the first showing an edentulous mouth, the second and third showing artificial dentures in place.

"Cav. M———, Surgeon Dentist, Artificial Teeth, Crown and Bridge-work, Fillings of gold, platinum, and porcelain—Operations painless by electric methods."

Cav. Prof. Dr. A. Chiavaro, Doctor of Dental Surgery of Philadelphia, Professor of Dentistry in the Royal University of Rome, who is a practitioner here, lectures to the *medical* students on the "Institutes of Dental Science" from seven to eight p. m. three times per week, and from nine to twelve a. m. every Sunday he gives a dental clinic for the poor at the Polyclinic on Via-le-del Policlinico outside of Porta Pia. These clinics consist of treating toothache, neuralgia, abscessed teeth, cleaning, extracting, giving good advice, and if there is need for fillings or prosthesis, the

patient is told to come to the doctor's office where his assistants —acting on his advice—care for them at a nominal fee, if any. During the Polyclinic hours mentioned, the doctor is assisted by several medical students, as there are often fifty or sixty patients present. The doctor has a large suite of offices beautifully furnished on Via Nazionale.

At the Papa Julio Museum we saw a specimen of gold work which was found in an Italian tomb dated about 400 B. C.; it consisted of three gold bands soldered together and designed to encircle the lower left first and second bicuspid and first molar; the band for the molar has a gold pin passing through it buccolabially and it seems to be riveted in place, as seen through a glass door. This trio of bands has been placed in the left side of a lower jaw without any teeth on that side, but in the upper maxilla of the same side there are some teeth which close upon the bands and hold them in place. They claim this is the skull found with the bands. That part of the Roman Campagna which extends to the north from the river Tiber to the Ciminian Forest and the mountains of Tolfa was the Southern Etruria of antiquity. There are Etruscan tombs at Cerveteri and Veii dated 396 B. C. Cerveteri was the Caere of antiquity, originally named Agylla (Phoenician, circular city), a place of very remote origin, afterwards became subject to the Etruscans, and in 351 B. C., it was incorporated with the Roman state. Numerous tombs have been discovered here since 1829, some of them clustered together and hewn in the rock, while others stand alone in conical mounds or tumuli. In some of these tombs specimens of ancient dentistry have been found. The late Dr. Van Marten, of Ohio, practiced dentistry in Rome for several years, and he told the writer that he saw some specimens of dentistry which were discovered in these tombs.

In Rome, very many of the best dentists have their offices in their residences. In one office we saw nine diplomas and certificates in fine gilt frames hanging on the wall of the reception room.

In the Profano Museum, which is a collection of ancient sculptures, there is depicted, as a fountain relief, the education of the young Esculapius.

In the Vatican Museum we saw a marble statue of Esculapius, the upper portion of the body nearly bare, with the right hand grasping a staff around which is coiled a serpent; a Roman

toga is draped over the left shoulder partly covering the middle third of the body and the knees.

At the Capitoline Museum is another statue in black marble —Nero Antica, black Laconian marble—which is very rare; it is posed and draped the same as the one described above.

In Italy, if a person studies for six years and graduates as an M. D. he is entitled to practice medicine, surgery, or dentistry. There are several dentists in this country who are striving to improve the condition of their profession by getting a new law passed which will establish a dental college on the plan of American colleges, and also require a dental student to study dentistry as a specialty and graduate at the dental college.

Naples occupies one of the most beautiful sites in the world, its bay having been an object of praise from ancient times; it has a population of 564,000, including ninety dentists among whom are no Americans, one Englishman, two Germans, one who has his wife for an assistant, and the rest are mostly natives. The best dentists here generally have offices in their residences. We saw a dental sign triangular in form about eight by nine feet projecting from the side of a building; another sign about ten by twelve feet was painted on the side of the building where the dentist had his office; another sign in a street car read, viz.: Chevalier G. G——, Dentist-Surgeon, Director of the *Odontiary Review*, Modern Installation, Electricity, Artificial Teeth, American Bridge-work. An M. D. told us that a dentist was giving a few lectures to *medical* students at the University of Naples.

We called on Dr. Guerini, Surgeon-Dentist of the Surgical Clinic of the University, appointed to the Royal House, editor of the *Journal L'Odonto Stomatologia.* He has placed in the hands of the National Dental Association (U. S. A.) his Mss. of the history of ancient dentistry, together with photographs, etc., of ancient dental instruments, etc., of which he has a large collection. The Association proposes to publish this history very soon, as the guarantee list of seven hundred subscribers at five dollars each is completed.* Dr. Guerini has a large, beautiful suite of offices and several assistants; one room is for a clinic for the poor, and nobody is sent away without having received attention. In the Doctor's office we saw life size bronze busts of Drs. W. D. Miller and T. W. Brophy.

*This history has been published.

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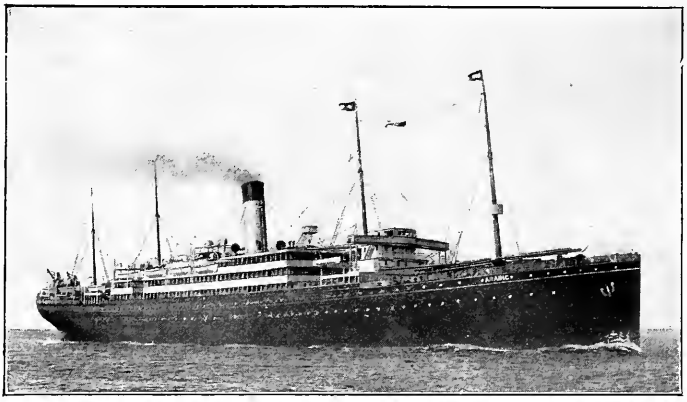

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